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## ORIGINAL ARTICLES.

### CASES OF HYSTERIA IN MEN<sup>1</sup>

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It is gradually being shown that hysteria is not so rare in men as was formerly supposed. Not very long ago the proportion of male to female hysterical patients was said to be about one to twenty, but Dana, in his recent text-book, estimates it as one to four. My own experience makes me believe that the latter proportion is near the true one, and that the hysteria of males is much oftener mistaken for other diseases than is the hysteria of females.

A diagnosis of hysteria, however, should always be made with caution, and we must keep in mind a clear idea of what is sufficient to justify it.

If a patient presents symptoms that do not correspond with those of any other functional disease, and if thorough examination fails to discover any organic disease there is a certain probability that the affection is hysterical. But reliance on the diagnosis by exclusion alone is dangerous. Cases of multiple sclerosis and even certain cases of muscular atrophy have by this method been mistaken for hysteria. If, now, in addition to the probable exclusion of other diseases, we find evidence of a predisposition to hysteria, the diagnosis is materially strengthened. The predisposition may be hereditary or it may appear only in the patient's personal history, as acquired through disease, injury, or a drug-habit. Mitchell speaks of injuries of the nerve-trunks making the strongest men hysterical, and the hysterical form of traumatic neurosis has lately become familiar. In one of the cases I report the abuse of cocaine seemed to predispose to hysteria; and in another of my cases, not reported, the prolonged use of chloral had, apparently, a profound effect of the same kind.

The most essential characteristic of hysteria is the occurrence of symptoms, of which the exciting cause is purely mental. This susceptibility to morbid suggestions, and the consequent whimsical variety and changeableness of the symptoms, are often clearly seen, as in the first case here reported.

But in severe cases, or those of long standing, this susceptibility may not appear on the surface, and then hysteria usually reveals itself most clearly in characteristic seizures. These seizures are light or severe. The light ones are the familiar laughing and crying spells in which emotional expression is altogether out of proportion to the exciting cause. The severe ones, having some resemblance to epileptic convulsions, are called hystero-epileptic attacks. The features of a true epileptic attack are a single peculiar cry; a fall, regardless of circumstances; tonic spasm, in which the tongue is often bitten; with cyanosis and dilated pupils, followed by clonic spasm, with frothing at the mouth, ending in general relaxation and a return of consciousness. The attack occurs suddenly with only a very brief warning, if any, and ends spontaneously in a few minutes. During the seizure the patient never utters a sound, except the initial cry, and the movements have absolutely no appearance of purpose. In the hystero-epileptic attack, on the other hand, there is often an emotional cause and a long premonitory stage, gradually working up to the fall and apparent loss of consciousness; the movements, such as arching the back, struggling or throwing the limbs about, indicate a purpose, though often a grotesque one; the attack may last a long time and be repeatedly renewed; the tongue is not bitten, though the lower lip may be; the patient often screams or talks during the attack; unconscious evacuations never occur.

In severe cases the state between the paroxysms may be marked by highly characteristic symptoms known as hysterical stigmata. The most important of these are hemi-anesthesia, anesthesia whose distribution has no relation to the nerve-trunks or spinal segments, contraction of the visual field, and paralysis and spasms of various muscles without essential symptoms of organic disease.

A diagnosis of hysteria may therefore be based upon:

1. The exclusion of other functional diseases, especially of epilepsy, and of all organic disease.
2. The existence of predisposition.
3. The occurrence of symptoms in response to suggestion.
4. The occurrence of hysterical seizures.
5. The presence of hysterical stigmata.

The negative facts that exclude organic disease and epilepsy are of the first importance, and are

<sup>1</sup> Read before the Colorado State Medical Society, June, 1893.

more essential to the diagnosis than positive symptoms of hysteria; for a patient may have a tumor of the brain, or true epilepsy, and in addition present conspicuous signs of hysteria. Especial care must sometimes be taken to exclude multiple sclerosis, for its symptoms may strongly resemble the hysterical stigmata and be even more changeable.

CASE I.—In March, 1893, A. G., twenty-four years of age, a fireman and prize athlete, came under my care. His father had convulsive seizures. The patient has always been unduly affected by a pathetic story or play, and has sometimes wept at the mere thought of a sorrowful occurrence. He is, nevertheless, one of the bravest of men in the line of his duty. A few weeks ago he happened to hear a conversation about heart-failure. When about to fall asleep that night he felt a pain in the cardiac region and was terrified by the idea that his heart might be failing. He broke into a profuse sweat and was unable to sleep, and so he arose and consulted the police-surgeon on duty, who reassured him and gave him a placebo. The next day he was all right until something reminded him of his fright, when he immediately had an attack of palpitation. Since then similar attacks have occurred, always preceded by the same idea. Examination shows absolutely no indication of organic disease of the heart or nervous system. Dr. Johnson informs me that this patient did very well on moral treatment and tonics, but had a decided relapse after seeing two of his comrades killed in a burning building.

The diagnosis was established in this case by the absence of other disease, the evident predisposition, and the marked relation of the alarming symptoms to morbid suggestion.

CASE II.—C. B., civil engineer, of robust build, came to me in June, 1892. His family history was good. He had been well until within a year, when he began to use cocain habitually in the nostrils. Two months ago an attack of weakness and numbness of the limbs, dryness of the mouth, and sleeplessness was attributed to cocain-poisoning. About ten days ago the external application of a 10 per cent. solution of cocain to a small boil on the end of the nose was immediately followed by a feeling of great helplessness and fright. Since then he has been much distressed by pain at the back of the head, poor memory, and insomnia. He had just started on a long engineering trip, but on reaching Denver felt so badly that he consulted a physician. Unfortunately, he was told that an attack of apoplexy was impending and that he must not attempt to go on or to return home, for fear of precipitating the stroke. Greatly alarmed, he went to Dr. Bancroft, who kindly sent him to me. As a very careful examination showed no disturbance of circulation and no organic disease of the nervous system, while a strong mental influence was evident, the patient was given some iron and strychnin and assured that he could safely go on his trip if he would only disregard his bad feelings. He did so,

and felt perfectly well for eighteen days, during which he successfully accomplished his work. But while returning home he had an alarming spell, in which the heart and respiration seemed to stop. At the same time a boil was found to be forming on the neck. At the first convenient stopping-place he consulted a physician. While the pulse was being taken the hand and arm became numb and felt as though bursting with blood. This sensation quickly spread over the whole body, which then felt as if it were being worked by electricity. I saw him a few days later and again reassured him by saying frankly that his symptoms were hysterical. He again improved, but after a time began to be troubled by sudden glimmering sensations before the eyes, followed by dimness of vision. Many months later he reported that he was about well, very seldom having spells of any kind and always being able to fight them off.

The mental origin of the symptoms was in this case plainly seen in the effect ascribed to the external application of cocain and in the queer feelings coming on while the pulse was being taken. The success of moral treatment confirmed the diagnosis.

CASE III.—J. H., thirty-seven years of age, a bartender, came under treatment in January, 1893. His father was asthmatic and his mother was rheumatic. The patient was formerly asthmatic. Seven years ago, while alone on a long drive and very thirsty, he had a peculiar choking spasm of the throat, so that he feared he might die. Similar spasms have recurred ever since, and they occupy the greater part of his attention. Lately he has been having "nervous chills" just as he goes to bed. He complains of various queer sensations, and has a morbid fear of being alone in a small room or on top of a building. He fears he is going to be paralyzed. Careful examination reveals no sign of organic disease. Although the patient says he cannot restrain his spasm of the throat, he can reproduce it at will, and it consists merely of a prolonged swallowing movement with contraction of the platysmæ.

The mental causation of his "spasms" and "chills" was explained to him, and under moral treatment with placebos, he has, for the time at least, recovered.

CASE IV.—March, 1893. A. B., aged eighteen years. Some months ago the patient thought he had sprained the right ankle. It was rested and bandaged, but pain continued long after an ordinary sprain would have been well. It was put in plaster, but to no purpose; as soon as an attempt was made to walk the pain returned. Finally he came to Dr. Van Meter, who, believing him to be hysterical, asked me to see him. We found the ankle to be normal in appearance and, when attention was withdrawn, free from pain or tenderness. A confident prognosis was given, and he was instructed to take an increasing amount of exercise every day in absolute disregard of pain. The faradic battery was

used merely for mental effect. In a few weeks the young man was playing foot-ball.

CASE V.—A., twenty-two years of age, supposes that he sprained both ankles some months ago, and has grown steadily worse in spite of treatment. On coming to Denver he placed himself in the care of Dr. Edmundson, who asked me to see him. We found him apparently unable to walk; indeed, he objected to standing for a few moments, saying he would suffer for days from the attempt. He was wearing blue glasses, even in the house, and said that his vision had of late steadily failed. There was a very marked facial twitch, and speech was at times embarrassed. Taking these symptoms superficially, we were both prepared to find a serious organic disease. But on examination the eyes, the various forms of sensibility, the reflexes, and the power to move any of the joints were all found to be normal. On being urged, he was able to stand perfectly well. The facial twitch was found to have existed since childhood, the remnant of an attack of chorea. After a confident prognosis he was treated by Dr. Edmundson with faradism, and graduated exercise in walking. In about six weeks he was able to walk four hours every day.

The two preceding cases are not examples of traumatic neurosis, because there was really no trauma. The following case is a good example of severe injury developing hysterio-epilepsy in a somewhat predisposed person.

CASE VI.—J. B., forty-five years old, was of neurotic taint on the mother's side. The patient was a steady drinker, and had been rather "fast" from youth up, though an industrious and successful business man. When thirty years old the right forearm was crushed between cars, necessitating amputation near the elbow. A few weeks after the operation the patient had a violent convulsion, in which a great effort was required to hold him. Similar attacks recurred for many years, at first every few days, later at much longer intervals. Men were often called to hold him, and the more he was held the worse the attack became. Any annoying occurrence, even the sight of a person he disliked, would precipitate an attack. A drink of whiskey would sometimes prevent an impending attack. This patient is now neurasthenic, and sometimes has hysterical attacks of a mild type. When suddenly startled, as by a horse rearing in the street, he experiences a sudden stab of pain in the lumbar region.

CASE VII.—J. I., a locomotive fireman, twenty-seven years of age, whose mother's sister had convulsive seizures. His ill-health dates from failure to pass examination for promotion to engineer four years ago. In the winter of 1889-90, while hunting, he was taken with "chills" and general spasms, the head being thrown back and the spine arched. One attack closely followed another for a considerable time, and he begged his companions to kill him, saying he would rather die than live as he was. Afterward he had no recollection of saying anything. After resuming work, nine months later, he

felt perfectly well for a time, but evidently had the idea that his work was bad for him. A few months ago he stopped work, and for a month past has scarcely been able to walk. He thinks he has spinal paralysis.

He is of strong muscular development; he walks with his knees rigidly semi-flexed and the ankles rigid and partly extended. He cannot extend either knee or flex the ankles; when he attempts to do so the opposing muscles strongly contract, and either hold the joint immovable or even move it a little in the opposite direction. The knee-jerks are normal. The patient is greatly startled on having them tested, saying that it goes clear through to his back. There is no ankle-clonus. Electric reactions of muscles are normal. He makes as much ado over the very mild electric tests as some men would over the amputation of a finger. The special senses and general sensibility are normal, except that there is an oval patch on the outside of each leg where the pain-sense is blunted. This analgesia is quickly removed by the faradic brush, but again returns. Urination is always normal.

The diagnosis of hysteria is based on the emotional disturbance at the beginning of the illness, the hysterical nature of the attack appearing soon afterward; the normal condition of the tendon-reflexes and the bladder (excluding lateral sclerosis and myelitis); the contraction of opposing muscles on attempting movement, and finally, the markedly hysterical demeanor. During the short time the patient could stay in the city treatment was successful in restoring normal motion to the knees, but the ankles were not improved. Could I have had this patient long enough I would have put him to bed for a short time and then have made him gradually begin to walk again, using electricity and massage for mental effect.

A very unfavorable factor in the prognosis is his interest in getting \$1500 from his brotherhood, on the ground that he is totally disabled for his work as fireman.

CASE VIII.—Z. G., a merchant, twenty-three years of age; a Mexican by descent; has a good family history. Hystero-epileptic convulsions began at the age of sixteen while overworked at school. After apparent recovery the attacks recurred in the winter of 1888-89, and again in March, 1892. Dr. McGarvey, the family physician, describes the seizures as lasting an hour or more, and as marked by the most violent and grotesque contortions, accompanied by exclamations of "Oh, my back!" "Oh, my head!" etc. The patient says that before the attack eyes, head and spine all ache together, and that he afterward does not remember what he has said or done.

He is thirty pounds below his customary weight. There is no paralysis or ataxia and no marked tremor except of the eyelids. Sensibility to touch, pain, and temperature, is good everywhere except that touch is dulled in the left hand. Taste and



smell are normal. Hearing is impaired by otitis media.

There is a remarkable visual defect. Owing to spasm of the internal recti he wears a ten-degree prism, base outward, before each eye, and nothing less will suffice. Testing each eye separately, vision with the prism is normal; without it, less than 4/50.

The use of prisms also markedly affects the visual fields. Without a glass each field is enormously contracted. With a prism the field is greatly increased in extent, especially laterally. Prisms are ordinarily useful only in binocular vision. There is no optical reason for their increasing either the acuity of vision or the extent of the field. This anomalous effect, which was repeatedly verified both by Dr. Coover and myself, must be attributed to suggestion.

The patient would not submit to the rest-cure, which I advised, and he soon passed from my care. Dr. Coover operated on the eye-muscles with excellent temporary effect on the nervous condition. I have just learned, however, that the attacks have returned, and that since the last one there have been maniacal symptoms.

CASE IX.—E. H., thirty-two years of age, came under treatment in April, 1891. His father's mother and two of his father's sisters were insane. A half-sister by the same father is epileptic. The patient has always been sickly and liable to headaches. When sixteen years old, while out of school on account of headaches, he fell in running up stairs. He says he became unconscious and was afterward in bed for several weeks. The whole right side of the body was numbed; hearing on the right side was impaired, and there is said to have been some defect of speech. He could move the right arm and leg, but could not hold objects in the right hand. In a few months he apparently recovered, and for a number of years afterward earned his living as a bookkeeper, writing with his right hand.

At the age of twenty-six he one morning found himself unable to talk; he knew what he wanted to say and wrote it down, but could not utter a word. During the next four months he regained only a few words, and so he submitted to an operation by a distinguished physician of New York, who assured him that it would restore speech.

On recovering from the ether he was able to talk. There was no external wound and no soreness, and he did not know what had been done. A couple of months after the "operation" he had a convulsion, preceded for an hour or more by a sensation as of something crawling in the larynx. Similar attacks occurred at intervals of a few weeks for the next three years. He was then free from them during a residence of more than a year in Colorado. On going to California in January, 1890, the attacks returned and have recurred ever since. Three months ago he broke down from nervous prostration attributed to overwork.

The right arm and leg are distinctly weaker than the left, but the face is not affected. Tremor occurs on moving the right arm or leg, and the movements are decidedly ataxic. Attempting to stand

with his eyes closed the patient falls to the right. The knee-jerks are exaggerated, especially the right, but there is no ankle clonus. Sensibility to touch, pain, and temperature, is greatly diminished on the entire right side, including the face and scalp, the boundary being sharply fixed in the median line. Hearing: left, 35/60; right, 8/60, with corresponding loss of bone-conduction. Smell and taste absent on right side. Vision (April 10th): left, 5/15; right, 5/25. The right field is greatly contracted, the color-fields being in their normal relation, but the green lying wholly to the left of fixation. The left field, though larger, is much contracted and the red lies within the green. For about 18° around fixation there is an area in which all objects are said to be blurred.

Three weeks later (May 2d), vision is found to have nearly doubled in each eye, yet the fields are of less than half their former diameters, and the scotoma in the left field has shrunk in proportion. The ophthalmoscope shows the eye-grounds to be normal. There is no nystagmus.

After one of the convulsive attacks, in which the mouth was bloody, I found a wound of the lower lip, but none of the tongue.

The late Dr. Wicks witnessed some of the attacks and gave me an imitation of one. The patient first walked the floor, rubbing his hands together and constantly growing more excited. There was some twitching of the hands, especially the right. After a time he uttered a cry and suddenly threw himself forward upon the floor, where he lay for a few moments perfectly limp. Then he jerked the right hand about and kicked with the right leg. The head was now drawn back and the teeth clenched. There was no frothing or biting and no cyanosis. The movements, which had every appearance of being voluntary, nearly ceased several times and then started up again. The attack lasted many minutes. Finally, the patient was aroused and he then complained of numbness in the right leg, which he kept kicking about in order to restore sensation. He gradually returned to his usual condition and showed no disposition to sleep.

It became very evident that under repeated examination by myself and others the patient was steadily growing worse. I did not have charge of him long enough to carry out any plan of treatment.

The diagnosis in this case was made only after considerable study. The intention-tremor at first suggested multiple sclerosis. But there was nothing else characteristic of sclerosis, and the tremor of hysteria may be exactly like typical intention-tremor. Moreover, a diagnosis of multiple sclerosis, even if established, could not account for all of the phenomena.

The apparent hemiplegia, with hemi-anesthesia and loss of smell, taste, and hearing, on the same side, suggested the possibility of an apoplectic lesion of the internal capsule at the time of the fall on the stairs. Against this are several weighty considerations. His age at that time was very unfavorable



to any form of apoplexy, while the paralysis of arm and leg, without involving face or tongue, is highly characteristic of hysteria. Hemi-anesthesia, while quite possible as a result of a capsular lesion, is, taken by itself, more likely to be hysterical, and the fact that the visual defect is not hemianopsia proves conclusively that the sensory part of the capsule has not been destroyed.

On the other hand, positive proofs of the existence of hysteria are abundant. The loss of speech must have been hysterical, for the patient wrote what he wanted to say, while in genuine aphasia, either motor or sensory, writing suffers at least as much as utterance; a sudden lesion of the bulbar nuclei, without other symptoms, is out of the question, and prompt recovery under a sham operation could occur only in hysteria. The contraction of the visual fields is such as occurs in hysteria. The inclusion of the red field by the green never occurs, as far as I know, from any organic disease. It is rare in the hysteria of Americans, but comparatively common in France. The marked shrinking of the fields and of the partial scotoma, while the acuity of vision increased, is utterly inexplicable except as an hysterical freak.

than in women, but in its large features the disease appears to be the same in both sexes.

### ON THE INCREASING PREVALENCE OF SCABIES.<sup>1</sup>

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UNDER the foregoing title Dr. James C. White, several years ago, called the attention of the profession to the increasing frequency of this disease, especially with reference to his own city, Boston.<sup>2</sup> The same tendency had been observed by me for several years previously in Philadelphia, and had, indeed, been so striking that at that very time a greater part of the data here presented was prepared for publication. Since then the proportion has kept its high place, and has, upon the whole, with slight fluctuation, been steadily growing, so that at the present time in the dispensary practice of this city the itch constitutes 10 to 15 per cent. of all skin cases. The following table (Table I) summarizes my own observations at the various services for skin disease with which I am or have been connected:

TABLE I.—SHOWING THE INCREASING PREVALENCE OF SCABIES IN PHILADELPHIA.

		1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892
Philadelphia Disp. for Skin Diseases	No. patients	217	308	331	279	239	388	277	433	642	688	451	...	...
	Scabies	8	5	9	3	11	14	20	48	100	66	52	...	...
	Percentage	3.69	1.62	2.72	1.07	4.6	3.61	7.22	11.09	15.58	9.59	11.53	...	...
Northern Disp., Skin Service	No. patients	440	464	460	538	405	...	...	...	...	...	...	495	500
	Scabies	3	10	13	16	16	...	...	...	...	...	...	64	61
	Percentage	0.68	2.15	2.83	2.97	3.95	...	...	...	...	...	...	12.93	12.2
University Hosp., Skin Dispensary	No. patients	...	...	...	...	448	402	396	515	433	435	...	...	...
	Scabies	...	...	...	...	3	13	13	24	38	28	...	...	...
	Percentage	...	...	...	...	0.67	3.23	3.3	4.66	8.77	6.44	...	...	...
Philadelphia Hosp. Skin Ward	No. patients	...	...	...	...	...	...	...	77	110	103	180	163	152
	Scabies	...	...	...	...	...	...	...	9	18	15	11	11	12
	Percentage	...	...	...	...	...	...	...	11.7	16.36	14.56	6.11	6.75	7.89
Howard Hospital, Skin Dispensary	No. patients	...	...	...	...	...	...	...	...	241	182	213	295	149
	Scabies	...	...	...	...	...	...	...	...	12	29	6	39	18
	Percentage	...	...	...	...	...	...	...	...	4.98	15.93	2.82	13.22	12.08
Jefferson Hospital, Skin Dispensary	No. patients	...	...	...	...	...	...	...	...	...	...	438	841	538
	Scabies	...	...	...	...	...	...	...	...	...	...	37	146	90
	Percentage	...	...	...	...	...	...	...	...	...	...	8.45	17.36	16.73
Totals	No. patients	657	772	791	817	1092	790	673	1025	1425	1408	1282	1794	1339
	Scabies	11	15	22	19	30	27	33	81	168	138	106	260	181
	Percentage	1.67	1.94	2.78	2.32	2.75	3.42	4.9	7.9	11.77	9.8	8.27	14.49	13.52

Finally, aside from many minor facts in the demeanor of the patient which pointed to hysteria, there can be no doubt that the attacks witnessed by Dr. Wicks were hysterical.

In considering all of these cases taken together, I see no essential difference between hysteria in men and hysteria in women. It may be that there is less of a craving for fuss and sympathy in men

It will be clearly seen by a glance at this table that scabies is becoming a common disease among the poor, and that it is not limited to particular parts of the city, although it is, it is true, much more

<sup>1</sup> Read at the Forty-third Annual Session of the Medical Society of the State of Pennsylvania, held at Williamsport, Pa., May 18, 1893.

<sup>2</sup> Boston Medical and Surgical Journal, February 14, 1889.

common at those centers toward which the foreign population trend. For example, the Northern Dispensary and the Jefferson College Hospital show the largest proportions, the former being close to the German population, and the latter near the Italian and Russian quarters. Moreover, it is not to be inferred that the percentages here given, although large, really represent the actual prevalence of the disease, for it is much more common than here noted. It is the custom in connection with dispensary services to record only such cases as personally present themselves, whereas often enough the patient is but one of a whole family affected.

Nor is this increase limited to one or two parts of our country, but it is widespread. Naturally, it is more frequently seen in our Eastern seaport cities. This general prevalence is shown in the next table (Table II), made up from the returns of the various members of the American Dermatological Association, as published in the *Transactions*:

TABLE II.—SHOWING THE INCREASING PREVALENCE OF SCABIES IN BOSTON, NEW YORK, BALTIMORE, CHICAGO, AND ST. LOUIS.

		1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891
Boston . . . . .	No. patients	3315	3264	3212	3190	3228	4054	4401	4515	4782	3460	3012	5310
	Scabies	29	22	67	96	179	224	334	374	494	368	254	392
	Percentage	0.87	0.67	2.08	3.01	5.54	5.52	7.59	8.28	10.33	10.63	8.43	7.38
New York . . . . .	No. patients	3326	3837	3231	6684	2737	3596	5692	...	2439	8055	914	487
	Scabies	35	64	76	132	52	36	178	...	151	282	87	31
	Percentage	1.05	1.66	2.35	1.97	1.89	1.0	3.12	...	6.19	3.5	9.52	6.36
Baltimore . . . . .	No. patients	663	503	520	623	...	1132	673	1075	489	...	...	2405
	Scabies	9	6	6	2	...	8	8	24	...	...	...	111
	Percentage	1.35	1.19	1.15	0.32	...	0.7	1.19	2.23	4.9	...	...	4.61
Chicago . . . . .	No. patients	2587	2100	2564	3167	2414	2675	2546	2010	2979	2741	1832	2744
	Scabies	14	31	22	72	56	56	34	72	59	80	48	97
	Percentage	0.54	1.47	0.85	2.27	2.32	2.09	1.33	3.58	1.98	2.92	2.62	3.53
St. Louis . . . . .	No. patients	260	264	424	450	555	888	...	1009	1075	1026	...	1628
	Scabies	...	...	1	7	13	74	...	36	27	28	...	47
	Percentage	...	...	0.24	1.55	2.34	8.33	...	3.56	2.51	2.72	...	2.88
Totals . . . . .	No. patients	11047	11076	11402	15490	8934	14007	14666	10366	14253	17544	6484	12574
	Scabies	100	134	202	334	300	442	632	643	965	960	426	678
	Percentage	0.9	1.21	1.77	2.15	3.36	3.15	4.31	6.2	6.76	5.53	6.57	5.39

When a disease of the character of scabies becomes so common among the poor, it may be certain that sooner or later it will, through many obvious channels, find its way among the better classes. And this is, indeed, already the fact. It was not until six or seven years ago that I saw a case in private practice, and then only one or two cases a year; whereas now an experience of ten to twenty cases yearly is not unusual. This I feel certain is also the experience of my colleagues in Philadelphia and in other parts of the country, as, indeed, the following table (Table III), compiled from the *Transactions*

<sup>1</sup> Includes both dispensary and private cases.

of the American Dermatological Association, will show:

TABLE III.—SHOWING THE INCREASING PREVALENCE OF SCABIES IN PRIVATE PRACTICE THROUGHOUT THE UNITED STATES.

	1880	1881	1882	1883	1884	1885	1886	1887
No. patients . . . .	2848	2641	3554	3656	2931	3737	2481	2849
Scabies . . . . .	15	7	26	34	33	49	56	62
Percentage . . . .	0.52	0.26	0.73	0.93	1.12	1.31	2.25	2.17

In seeking for causes for this increasing frequency several of the more potential factors, which are to a great extent responsible, should be referred to. Of first importance is the character of recent immigration. It is common knowledge that the present immigrant is, on the average, far below the standard in cleanliness, etc., that obtained some years ago, and this extremely undesirable class, largely made

up of Russians, Poles, Huns, and Italians, have, especially for the past eight or ten years, been arriving here in great numbers. Judged by dispensary observation, it would seem that the itch is the normal state in the steerage of to-day, and many of those even who are free from the disease when embarking, are fairly certain to acquire it on their way over. These cases arriving in our midst are so many additional foci for its spread. Another factor in its increase, and not an unimportant one, is the

<sup>1</sup> After 1887 the private and dispensary cases were merged in the returns. Since that date private cases have, according to my own experience and that of others, increased almost as rapidly, proportionately, as have the dispensary cases.

"day nursery." An affected child is placed here for the day; it comes closely in contact with its comrades, and before its short sojourn is over several more cases have had their origin and are themselves carriers for the further spread of the disease. The children's "home," and "asylum" are likewise often responsible, for it is not unusual to find that the invasion of a whole family may be traced to the return home of a child temporarily placed in such institutions. These statements are not made at random, but are based upon repeated observation. The cheap lodging-houses are also fruitful centers of contagion; many of the Philadelphia (charity) Hospital cases have their origin in such places. Another element in its increase, and especially among the better classes, is to be found in our growing tendency to travel, and the rapid multiplication of travelling salesmen and drummers. With ordinary and proper precautions on the part of hotels, this factor should sink into insignificance, but it is extremely doubtful if the linen in the average hotel bed is always changed, or changed in its entirety, after a single night's occupation; and yet, if not, and had an affected person slept therein, the next occupant will almost assuredly contract the disease. I mention this method of spread for the reason that in a large proportion of private patients whom I have treated for scabies, the disease could be distinctly traced to such a source; nor were the cheaper hotels alone culpable. Finally, the failure on the part of physicians to recognize the disease, especially when ill-developed or in its beginning stages, must be looked upon as an important element in explaining its increasing prevalence. This is not said to reflect upon the profession, for it is the result of lack of opportunities. Graduates of the present day, if they make use of their advantages, are pretty well schooled in the recognition of this disease, as it is now a common one at the clinic; but some years ago—during my own student days, in fact—the presentation of a case of scabies was rare.

There are several points regarding the eruption which, if kept in mind, will serve to prevent error in diagnosis: distribution, itchiness, multiformity, the presence of burrows (cuniculi), and the linear character of many of the lesions. Moreover, in a majority of the cases inquiry will disclose the existence of the disease in a bedfellow, comrade, or in others of the family. The burrow, which is pathognomonic, is not always present. Special stress, in my opinion, should be laid upon the distribution and the linear character of the lesions as diagnostic symptoms of great value, and invariably present. Some or many of the lesions are always found to be longer than they are broad, appearing as elongated or oblong papules, vesicles, and pustules; scattered lesions of this kind, especially when seen about

the fingers and hands, wrists, axillary folds, shaft of the penis, and anal region, even though few in numbers, should always excite suspicion. As a rule, private cases are most difficult to recognize, inasmuch as such persons are usually extremely solicitous about any skin-irritation, take daily baths, use soap and water freely, so that the disease is measurably held in check and the eruption remains scanty. It is not rare in some of the private cases to find but two or three lesions upon the fingers or other parts of the hand, possibly a few on the wrists, and one or several on the penis, with here and there an excoriated papule or a scratch-mark over the lower trunk. Even in private cases the anal region is a common site for several or more lesions.

The treatment of scabies is well known. It is as simple as it is efficacious, and every case thoroughly and quickly cured frees the community of a moving and active contagion-carrier. In the average case of the dispensary class I have usually prescribed a compound ointment, consisting of an ounce of sublimed sulphur, an ounce of Peruvian balsam, thirty to sixty grains of  $\beta$ -naphthol, and sufficient benzoated lard or petroleum ointment to make four ounces. The patient is directed to take a soap and hot water bath. Ordinarily any good toilet soap will answer, but in those of sluggish, thick skin, or of filthy habit, a good sulphur soap or *sapo viridis* is preferable. After the bath the ointment is to be energetically rubbed in over the whole surface from the chin down, special attention being given to the parts most affected. The back should not be neglected, the application to this part being preferably made by another person. Clean linen is put on, and clean bed-linen used; the soiled linen is to be boiled. At the end of ten or twelve hours another application of the ointment is made, and so on for six applications. During this time the same linen is worn. Some hours—about half a day—after the last application another bath is taken and a complete change of linen made. The linen which had been worn, as in fact all the underwear and bed-linen before being used again, should be thoroughly boiled. By boiling, all stray parasites and their ova are destroyed. During the treatment it is advisable to have a dusting-powder of sulphur sprinkled in the bed, in the bureau-drawer, and in other suspicious places. All outer clothing should be subjected to high temperature, if possible, or thoroughly beaten and hung out in the air and sun. Other members of the family should undergo inspection, and those affected treated in the same way, and those doubtful advised to make two or three thorough applications. It is only in this manner that the disease is cured and its recurrence prevented. In young children and infants the



$\beta$ -naphthol is omitted and the quantity of sulphur reduced to one-half. In these younger cases, particularly infants, the disease often invades both face and scalp, also especially the lower part of the face, and this fact should not be forgotten in the treatment. In private practice I have commonly prescribed the same ointment, but with the  $\beta$ -naphthol omitted. In some cases, also, an ointment made up of equal parts of styrax and lard; two to four applications will usually suffice in these patients.

To control the cutaneous irritation which is not infrequently set up by the scabies or by the sulphur applications, and which sometimes persists for several days or longer after active treatment has been discontinued, it is well to advise the application, two or three times daily, of a saturated solution of boric acid, containing one to three drams of carbolic acid, two drams of glycerin, and four drams of alcohol, to the pint. Should the treatment have been inefficiently or carelessly carried out, as not infrequently happens in dispensary practice, evidences of an active return of the disease will soon appear, and a repetition of the plan described above, somewhat abbreviated, will be found necessary.

As to controlling the spread of the disease, in the broad sense of the term, and placing it again low down among the comparatively rare skin-diseases, I am convinced much can be done. The recognition and prompt cure of each case, as soon as it is presented, as already remarked, is a step in the right direction. Patients should be cautioned as to the contagious nature of the disease. Moreover, there is absolutely no reason why an immigrant with the itch should be allowed to land. The disease may be rapidly cured, when circumstances demand it, by employing much more energetic measures than those already mentioned, but which need not be outlined here. Such an immigrant may be rendered entirely harmless in an hour or so by such vigorous treatment, during which time his clothing and effects could be baked, steamed, or sulphur-fumigated. Energetic treatment of this kind, it is true, often leaves the skin in a state of active irritation, but this with several days' use of a mild, soothing ointment will subside. Infants and young children should be carefully inspected before being admitted to "day nurseries," "asylums," or "homes," and if found with any evidence of skin-disease should be rejected till a professional assurance of its harmless character is obtained. The same rule should be applied in the admission of children to the public schools. Hotels, small or large, should be legally required to make complete change of bed-linen before the bed is assigned to another occupant—not to mention other reasons why this should be done. Lodging-houses to which cases may be clearly traced should be reported to the Health Board for investi-

gation, and the institution of proper measures of disinfection.

It is, I know, a common thing to speak of the itch with more or less humor, as a joke, but it is an exceedingly unpleasant experience for the immediate victim, his family, and for the community at large. A disease so readily cured, so readily controlled, and so readily preventable as this, has no reason for its existence in our midst—certainly not to such a great extent as it exists at the present day.

223 S. SEVENTEENTH STREET.

## ORIGINAL LECTURE.

### CHRONIC NEPHRITIS WITH HEART-COMPLICATIONS.

By JOSEPH M. PATTON, M.D.,

OF CHICAGO, ILL.;

PROFESSOR OF INTERNAL MEDICINE IN THE CHICAGO POLYCLINIC.

GENTLEMEN: We have this afternoon two cases which are of much interest, because they present different phases of the same disease, phases that are of interest both from a diagnostic and from a therapeutic standpoint. This gentleman is fifty-five years of age. He has followed various occupations, none of which entailed very vigorous labor, while they all furnished him with plenty of exercise. He has always been in good health, so far as his memory serves him, until within the past two years, when he noticed that he was passing considerable urine—not that this troubled him any, for with the common idea that people have that when they are passing plenty of urine there can be nothing wrong with the kidneys, he gave this matter little attention; but as we call his attention to it he remembers that for a long time he had to get up two or three times during the night to empty his bladder. He says that about a year ago he at times noticed a little swelling of his ankles, but as he was on his feet a great deal during the day he paid little attention to it. Some six months ago he noticed that this swelling was a little more marked, and that he began to suffer from shortness of breath, which became so marked that at times he was unable to follow his business. About a month after this it began to trouble him seriously, and he noticed that his urine became more scanty; that it was cloudy in appearance, and that micturition caused him some little irritation. He was then also suffering from more dyspnea than he had formerly experienced; he had some slight cough. The swelling in the lower extremities began to increase until he called in the services of a physician. This condition became worse, instead of better, until the edema of the lower extremities reached above the knee. The skin was very tense and shiny, and in one or two places had broken, and the serum was oozing. He had now very great dyspnea, could not lie down, could not walk, and there was some cough and expectoration of a little frothy mucus. The appetite was bad; the stomach irritable; the bowels were comparatively regular. At this time he appeared at the clinic, and on examination we found the condition described. We found that his heart was very much enlarged; the apex was under the sixth rib, about half an inch outside of the nipple-line. The

first sound heard was diminished in force and very muffled in character. The second sound was relatively intensified, particularly over the aortic and pulmonic valves. The lower third of the lung was edematous from passive congestion; the liver was considerably enlarged from the same cause. The man was passing about eight ounces of urine in twenty-four hours, and the secretion contained a large percentage of albumin, some granular casts, and occasionally also hyaline casts. The specific gravity was 1024, and the urine was of a dark and reddish color. Here, then, was a case evidently of chronic nephritis, probably of the parenchymatous variety, upon which had been engrafted an acute inflammation of the kidney, which caused the sudden appearance of all the severe symptoms and the great diminution in the amount of urine secreted.

At that time the man was placed upon the following treatment: He was given three grains of calomel three times a day, until he had taken six doses. This was for its diuretic effect. A small amount of deodorized tincture of opium prevented any pronounced laxative effect upon the bowels, and allowed time for its effect on the kidneys. He was given a small dose of fresh infusion of digitalis containing ten grains of potassium nitrate. The dose was at first two teaspoonfuls every four hours; this was gradually increased to a tablespoonful, and in the course of two days he was taking a tablespoonful every four hours, night and day. In the course of three or four days the amount of urine had increased to four quarts in the twenty-four hours, and the man continued passing from four to four and a half quarts of urine daily for about five or six days, when the quantity gradually returned to from sixteen to twenty ounces. By this time the edema of the limbs had entirely disappeared, as had also the edema of the lungs and the congestion of the liver. The patient was now given small doses of sodium bromid with a preparation of pepsin and tincture of nuxvomica for his stomach. He progressively continued to improve for about two weeks, when suddenly his pulse dropped to 32 beats per minute. At this time he reappeared in the clinic, and on examination of his heart we found that it was beating at about 80 per minute, while the radial pulse only showed from 35 to 40 beats per minute. This was due to the fact that every alternate cardiac systole was a very weak one, and while each beat of the heart could be distinctly heard with the stethoscope, all of the sounds being distinguished, the weak beat did not affect the radial arteries. The heart was arrhythmic and irregular both in force and rhythm. The first sound was distinctly muffled, and the second sound was very much more intensified than formerly. The digitalis was stopped, and caffeine was given. This was administered in the form of the alkaloid of caffeine combined with sodium benzoate. This makes a solution which contains about 48.5 per cent. of caffeine. A soluble salt is also readily made of this medicament with sodium cinnamate or salicylate. The combination with sodium cinnamate contains about 58.9 per cent. of caffeine, and that with sodium salicylate 61 per cent. of caffeine. It is a matter of election which of these salts you will use. As a matter of experience, I am more in favor of sodium benzoate. Three drams each of sodium benzoate and the alkaloid of caffeine were ordered in three ounces of distilled water. A teaspoonful of this mixture

was given every four hours. At the time that this was prescribed the heart was very irregular, at times beating 35 to the minute at the wrist, and again 60 or 70, and then dropping back suddenly to 35 or 40. The first sound was so weak, and the second sound so much intensified, that it appeared doubtful if any good effect could be obtained from cardiac stimulants. Under the use of this combination, however, he steadily improved, and in the course of ten days his pulse became quite regular. The action of the kidneys was maintained by means of this prescription, without any other medication. As you see him to-day, he looks quite well; there is no edema of the feet; no congestion of the lungs; no congestion of the liver. He is able to walk at a moderate gait, and to climb steps without getting very much out of breath. The pulse now is 76 to the minute, strong, and regular. As you examine his heart you notice that the apex is just under the nipple. The first sound is of a very fair character, though not as strong as it should be in a perfectly healthy heart. The second sound is still somewhat intensified over the aortic and pulmonic valves. The man eats well, and digests well; his bowels are regular, and he is passing about the normal amount of urine, which contains no albumin; and to-day we are unable to detect any casts in the sample that he has furnished us; they are probably temporarily absent.

This is a somewhat better result than you would expect in most cases of the kind. When cardiac disease has resulted from chronic nephritis, and you have dilatation, as in this case, and reaching the extent present here, it is very difficult to obtain any marked or permanent improvement, and the result in this case is largely due to the man himself; he was willing to go to bed, remain on his back for six or eight weeks, keep perfectly quiet, avoid excitement of all kinds, and confine himself to a limited diet, consisting of milk, broth, liquid beef-peptonoids, and as he grew better occasionally a poached egg and a little toast with tea.

This other man whom we show you to-day is thirty-eight years old. He has been a business man all of his life, and actively employed. He says that he has never previously been ill, but for the last six months he has been troubled with dyspnea, at times a little cough, some sleeplessness, and a capricious appetite. He claims never to have noticed anything wrong with the action of his kidneys; that he never was compelled to get up at night, with any regularity, to pass his urine, and disclaims any idea of kidney-disease. He has been under treatment for two or three months for the dyspnea, which his physicians told him was due to a nervous irregularity of the heart. About four months ago he came to the clinic exhibiting great edema of the lower extremities, some congestion at the base of the lungs, marked dyspnea on exertion, loss of appetite, insomnia, and great muscular weakness. Examination of his urine showed that its specific gravity was 1022; it was of a rather light color, and contained a small amount of albumin, with a few granular casts. Examination of his heart disclosed a very much enlarged left ventricle, the apex being three-quarters of an inch outside of the nipple line and under the sixth rib. There was no evidence of valvular disease. The ventricle had evidently undergone hypertrophy and subsequent dilatation. The condition at that time, the man maintained, developed quite rapidly.

There was no history that would indicate an acute attack of parenchymatous nephritis, so that unless over-exertion were responsible for the precipitation of his symptoms, we are unable to tell the cause.

He was placed upon the same treatment as the case we have just detailed, that is, calomel as a diuretic, and infusion of digitalis. Of the mercurial he took a little too much through mistake and suffered a slight stomatitis, which responded readily to the action of a potassium chlorate mouth-wash. He improved rapidly under this treatment, and in the course of a week had gotten rid of his dropsy; his dyspnea had disappeared; the heart's action was regular, and he was feeling very much improved. The necessity of quietness was enjoined upon him, which injunction he failed to observe very closely, and shortly after this, while upon the street one day, he suddenly lost consciousness. He was taken home, and I saw him about six hours afterward. At that time he was not entirely unconscious, but could be roused partially. There was hemiplegia of the right side, with ataxic aphasia. The heart's action was regular and somewhat slower than it had been. From what I could learn from those who saw him after the attack, he was probably never totally unconscious, and with difficulty could be partially aroused. This is an important point in the differential diagnosis of this condition, which is due cerebral embolism. It is of importance in such an attack as this to determine just what we have to deal with. We know that embolism is frequent in diseases of the heart associated with nephritis, and that it may occur at any age. This man is not too young to be liable to cerebral hemorrhage, so that the liability to it from the standpoint of age would have some bearing on his case. Right-sided hemiplegia, with ataxic aphasia, points toward embolism, the left middle cerebral artery being in more direct communication with the left ventricle. The territory supplied by this artery is the one liable to suffer from the effects of embolic plugging as a complication; consequently right-sided hemiplegia is more distinctive of embolism, and left-sided hemiplegia more distinctive of hemorrhage. In hemorrhage the coma appears with the same suddenness as it does in embolism, but it is more profound, and lasts for a greater length of time. In embolism the coma is more liable to be partial than complete, and wears off sooner than in hemorrhage. In hemorrhage the face is usually flushed during the attack, or has a congested appearance, whereas in embolism it is usually pale, as was the case with this man. The breathing in hemorrhage is stertorous and puffing in character; whereas in embolism it is somewhat slower than usual, but otherwise not distinctive. The pupils in hemorrhage may be dilated, contracted, or unequal; in embolism they are more likely to be unchanged. The pulse in hemorrhage is more likely to be irregular than in embolism, although on account of the cardiac conditions present in this instance the pulse could not be relied upon to furnish any diagnostic points. You are more likely to have aphasia associated with hemiplegia of the right side in embolism than in hemorrhage. The aphasia is usually of the ataxic variety. It may be amnesic in kind—that is, with the ability to phonate, but only to pronounce such words or sentences as are repeated to the patient by others. In the ataxic variety there is an in-

telligent conception of words, but inability to coordinate the muscles to perform phonation. The coma in this case began to improve in about twelve hours, which is rather sooner than it would in hemorrhage. This improvement was gradual, and in the course of three or four days the man was able to coordinate the muscles of his jaw and the muscles of phonation so that he could talk fairly well. About twenty-four hours after the attack his pulse dropped to thirty-five beats per minute. This was due, as in the previous case, to alternate weak and strong contractions of the heart.

An interesting and peculiar feature of the cardiac rhythm that developed in this case has been called the "gallop-rhythm," because it resembles the sounds produced by the hoofs of a galloping horse. It has been described by various writers, notably by Potain, and also at some length by Fraentzel. Various causes have been ascribed to the production of this symptom, some claiming it to be due to unequal contraction of the ventricles. Fraentzel assumes that it is due to unequal tension in the two vascular systems, so that the closure of the pulmonic valves is not synchronous with that of the aortic valves. He describes it as a triple rhythm, consisting of three sounds, the second of which is an accentuated sound, a long interval occurring between the second accentuated sound and the third or last sound, two of these sounds occurring in diastole. This he claims to be the essential feature of the so-called "gallop-rhythm." This peculiar action of the heart may be found in disease of the kidneys associated with cardiac disease; also in some acute diseases, such as typhoid fever, pneumonia, etc. I have observed it in a number of instances, but never before have I had as good an opportunity of studying the symptom during its production and continuation as in this case. It is very evident to me, from examinations made at the time, that in this particular instance the production of the peculiar rhythm was due to the following conditions: There were alternate strong and weak contractions of the heart. The interval between the weak contraction and the strong contraction was greater than that between the strong contraction and the weak one, so that two beats of the heart appeared rather closely together. The muscular element of the first sound was most entirely lost on account of the degeneration of the myocardium and the dilated condition of the heart-cavities. The second cardiac sound was very much intensified, and was much the louder of the two sounds. During the stronger contraction of the heart the first, muscular sound, could be distinctly heard. With the second contraction of the heart, or the weak contraction, the first sound of the heart could not be heard, and the second very faintly, so that in listening to the action of the heart we heard the ill-defined first sound of the strong contraction, followed by a very much accentuated second sound of the strong contraction; then follows an interval longer than that between the first and second sounds just described; this interval covers the period of the first sound of the weak contraction, which is entirely lost, this period being followed by the second sound of the weak contraction, which is ill-defined, thus giving us a rhythm which is composed of three sounds, the second of which is accentuated. In the character of the rhythm, this corresponds to the gallop-rhythm described by both Potain and Fraentzel; it does not correspond



with Fraentzel's claim that two of the sounds must be produced in diastole, unless you admit that the diastole following two different contractions may be included in this definition. It is plain here that two of these sounds were produced in diastole, but they belonged to two different contractions of the heart. This peculiar symptom lasted for about a week, and gradually receded with the general improvement. At this time the patient is under the influence of caffeine, as is the other patient, and this has been continued with more or less regularity up to the present time. As you see him now, he is still suffering from the effects of the hemiplegia, having little use of his right limb and none at all of his right arm. The face has regained its natural expression; he is able to talk freely, and is in a fair general condition. The hemiplegia is more persistent in this case, probably on account of the poor general nutrition. The man's heart is still considerably enlarged; the apex is one-quarter of an inch outside of the nipple-line and in the sixth interspace. The action is regular; the first sound is fairly well defined, but there is still considerable intensification of the second sound.

I am glad to present these two cases side by side, as they represent the uncertainties of prognosis in these cases. The younger man, at the time the dropsy was so marked, presented every indication of being a much more favorable case than the older one, and yet we now have a condition which can only be recovered from partially, and which leaves an unsatisfactory result. Both patients are taking caffeine two or three times a day, together with iron, strychnin, and arsenic as general tonics.

I have here a young lady whom I wish to show you more as a matter of curiosity than for any other reason. She is twenty-three years of age, and has always been in fair health. Her mother tells me that she has always noticed that from a child the girl was inclined to get blue about the face and hands upon the slightest exertion; that there is always some dusky redness of the extremities present, such as you see now. The hands and forearms are of a rather dusky-red color. The circulation is poor, and the hands are cold. The fingers, you will notice, are slightly clubbed; the nails are widened, arched, and bent somewhat inward. You notice as she exerts herself walking up and down the room, she acquires the same dusky hue of the face that is present in the extremities. She also suffers from dyspnea on moderate exertion. She does not complain particularly of cough; in other ways she seems to be healthy.

Upon examination of her lungs we find nothing which would account for the dyspnea. Upon examination of her heart you hear a very loud, blowing, systolic murmur, which can be heard all over the chest, front and back, and in the course of the brachial arteries. This murmur can be heard through all of her clothing, and appears to be of the greatest intensity about the upper border of the third rib upon the left side of the sternum. The apex is in the proper position, and is not displaced at all to the left. The heart shows no unusual force or effort in its action, and there appears to be no change in the condition of the heart-muscle or in the size of the cavities.

The question of diagnosis here is the only one of interest.

We have to diagnosticate this condition from any other systolic murmur which might be present. If it were due to aortic stenosis, the murmur should be heard on the right of the sternum in the second intercostal space, should be conveyed into the vessels of the neck, and there should be some resulting change in the size of the left ventricle from an aortic stenosis of such long standing. If the condition were due to mitral regurgitation the murmur should be heard in the mitral area, transmitted to the left, should be much softer and there should be compensatory changes in the right ventricle. These conditions are absolutely wanting. The character of the murmur, its loudness, its duration, its position of greatest intensity, the lack of any particular direction of transmission, the lack of any secondary changes in the heart-muscle or cavities, combined with the cyanotic appearance of the peripheral circulation and the history of a continued condition of this kind, would compel us to make a diagnosis of communication between the right and left sides of the heart of a congenital character. The time of this murmur, which does not in the least precede the first sound, and its point of greatest intensity, its duration, and its loudness, would indicate to me that the particular condition of the heart would probably be a deficiency in the upper portion of the ventricular septum, rather than an open foramen ovale. This communication we know often exists through the foramen ovale in the septum of the auricles. It may also result from deficient closure of the upper portion of the ventricular septum, which is normally very thin. Some writers claim that insufficient closure of the foramen ovale (the foramen is closed by a valve in the fetus, and may remain open after birth) does not lead to any admixture of the blood of the two auricles, or, at least, does not produce any symptom which is discoverable during life; and that insufficient closure of the ventricular septum does not lead to any discoverable symptoms. It has also been claimed by some that the mixture of venous with arterial blood does not cause cyanosis. The report of a case in which the left subclavian artery arose directly from the pulmonary artery, and in which the left upper extremity was normal in color, has been used to refute the opinion of older writers that the admixture of blood caused the cyanosis. Whatever the actual cause of cyanosis may be, it is a clinical fact that those cases in which the cardiac septum is deficient exhibit cyanosis as a symptom.

Therapeutically, there is nothing to be done for these cases as long as the heart undergoes no change and has sufficient dynamic integrity to perform its functions. In a diagnostic way they are always interesting, and this case is simply shown for that purpose.

*Congenital Umbilical Hernia into the Cord.*—WARREN (*Archives of Pediatrics*, vol. x., No. 8, p. 627) has reported the cases of two infants in each of which congenital umbilical hernia existed at birth, for the relief of which an operation was successfully undertaken. In the one instance the hernial sac, upon operation performed when the child was twenty-four hours old, was found to contain a portion of the liver fastened by adhesions; in the other, in which the operation was performed when the baby was three hours old, the sac contained intestine.

## CLINICAL MEMORANDA.

## PUERPERAL ECLAMPSIA IN A PRIMIPARA BEARING TWINS.

BY F. M. THORNHILL, M.D.,  
OF ARCADIA, LA.

ON the morning of January 29, 1893, I was sent for by Mr. L. to visit a young negress living on his farm, about two and a half miles from my office. The messenger informed me that the woman was in labor. I ordered my horse, and in a short time was on the way. Before reaching the place I met the husband of the woman coming to hurry me up, saying that his wife was having "fits." On arriving at the house I found the woman just recovering from a convulsion, and in a short time she was seized with another. As soon as practicable after the effects of the convulsion had passed off, I proceeded to make a digital examination. I found the womb and its contents high up in the pelvic cavity, and the os uteri dilated scarcely to the size of a silver quarter-dollar. I barely had completed the examination when the woman had another convulsion. I immediately gave her a quarter of a grain of morphin sulfate hypodermatically, and as soon as she could swallow, thirty grains of potassium bromid by the mouth, which had the effect of arresting the convulsions for an hour or more. With the cessation of the convulsions, uterine contractions also ceased and for about the same length of time.

During the calm I elicited the fact that the woman's confinement had been expected for several days, and that an old colored midwife (who was present) had been in waiting upon her for some time. The patient was a primipara, sixteen or seventeen years old, and had been complaining for several days with headache and vertigo, and on the morning of the day on which the seizure occurred, while in the act of rising from her bed, was seized with a convulsion and fell unconscious on the floor. After an intermission of an hour or so without any convulsions, and with the return of uterine contractions, she again commenced having convulsions—almost each recurring pain exciting a convulsion, notwithstanding the fact that I gave her frequently repeated large doses of potassium bromid, chloral hydrate, and morphin sulfate. At the same time I attempted to stimulate uterine contractions by the administration of ergot, and to hasten the progress of labor by artificial dilatation of the os, together with compression of the fundus of the womb through the abdominal parietes. The uterine contractions were very inefficient and dilatation of the os and descent of the head very slow. I had hoped by this course of procedure to be able to terminate labor naturally and favorably, without instrumental intervention; but the convulsions continued to recur with such increasing frequency, and the brain and nerve centers were being so rapidly overcome by them, that I saw labor would have to be terminated by instrumental interference, or else my patient likely would die undelivered. I accordingly despatched a messenger for professional assistance, pending the arrival of which I had recourse to chloroform-inhalations to control the convulsions. This had the effect of modifying the violence and shortening the duration of the paroxysms.

After a delay of some two or three hours Dr. A.

and Dr. P. arrived. The woman had just had a convulsion when they entered the room. I suggested that we administer chloroform and deliver at once, if possible. An examination at this time revealed the fact that dilatation of the os was nearly complete. Dr. P. proceeded to administer chloroform, and when anesthesia had been produced, I attempted to apply the forceps. The presentation was that of the vertex in the first position. For some cause, which we at the time did not appreciate, I was unable to adjust the forceps, and after endeavoring to do so for some time without success, I turned the instrument over to Dr. A., who, after considerable effort, also failed. I again made an effort to apply the forceps to the child's head, and after considerable difficulty at last succeeded in doing so. We supposed then that we would have no further trouble in effecting a speedy delivery; but to our surprise and disappointment, when I had made traction on the forceps to the utmost of my strength, no progress was made, the head still remaining immovable. After tiring myself out in the effort to advance the head, Dr. A. relieved me, and after exhausting himself in a futile attempt to move the head, I again took charge of the forceps and applied traction with all the force I could safely exert, at the same time employing a rocking lateral motion upon the handles of the forceps. After considerable persistence I succeeded in delivering the head, and removed the forceps. After waiting some time for uterine contraction to begin, I hooked my fingers in the axillæ and proceeded to complete the delivery of the child, when I discovered that unusual effort was necessary. After a good deal of difficulty the child was finally delivered, but the umbilical cord was found to be not more than six or eight inches in length. This we at once concluded must have been one of the chief obstacles to descent of the head and natural delivery; but when we came to deliver the placenta it was discovered that there was another fetus in the uterus, and on examination the face was found presenting. We converted the presentation into one of the vertex, this being easily accomplished, as the genital canal had been dilated by the passage of the first child. We again applied the forceps and now delivered at once without difficulty. The cord was found coiled once or twice around the neck of the second child, and of about the usual length. Both children were contained in a common amniotic sac and placenta and were females, in accord with the doctrine that twins of the same sex are always developed from different centers of one and the same ovum and are contained in a common chorion, placenta, and reflexa.

When the delivery of the second child had been effected, we congratulated ourselves that we were done and were to escape any further complications in the case; but when we came to deliver the placenta we found it firmly adherent to the walls of the womb, so much so that the vigorous employment of Credé's method, together with forcible traction on the cord, were insufficient to remove it. I was therefore forced to introduce my entire hand into the cavity of the womb and insinuate my fingers between the placenta and the wall of the uterus and break up the attachments by sweeping the hand around the entire circuit of the uterine cavity in order to effect the dislodgment of the placenta. The womb contracted well after the removal of the mem-

branes. The woman afterward had two or three convulsions and did reasonably well for the next twenty-four or thirty-six hours; but at the end of this time septic metro-peritonitis set in and death took place about a week after the delivery. Both children were born alive and did well for several days, when one of them died from the effects of cold, from careless exposure. The other child lived until June 10th, when it died of catarrhal croup. The first child born weighed six or seven pounds, and the second one about five pounds.

A remarkable feature in this case is that both children should have been born alive, after having gone through such a terrible ordeal. Delivery was, however, accomplished without unusual injury to mother or children. After delivery had been completed and the true state of things was revealed, it occurred to me that the difficulty experienced in adjusting the forceps and in delivering the first child was due to the crowding of the face of the second child down against the neck and occiput of the first one, producing locking of twins *in utero* as it is termed in the text-books. This is a complication which it is said is rarely or never recognized before the birth of the first child. In this case in the midst of the excitement and confusion of the hour the possibility of a multiple pregnancy escaped my mind, and I made no investigation with a view of determining the existence of twins. Did I leave anything undone that should have been done or could have been done? Perhaps the advocates of blood-letting and veratrum viride will say that I should have had recourse to the use of these measures; but in anticipation of such criticism I desire to say that if those agents are ever valuable in the treatment of puerperal eclampsia I did not consider them applicable to the case here reported. There was an absence of arterial fullness and venous stasis, and the pulse was small and feeble. In conclusion I desire to say that I consider the prompt and skilful use of chloroform and the forceps more potent for good in the treatment of puerperal eclampsia than all other agents.

#### THERAPEUTIC NOTES.

BY SOLOMON SOLIS-COHEN, M.D.,  
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#### V.

##### ETHYL IODID.

THIS drug, formerly known as *hydriodic ether*, is one of the most useful, but least used agents in the materia medica. Its vapor, mixed with air, is to be inspired. Its effects are those of iodine modified by ethyl. Extremely volatile, the methods by which it may be administered are the simplest. One needs but to hold to the mouth or nostril a vial containing the medicament, and inhale the vapor which the heat of the hand is sufficient to cause to rise. I usually prescribe half a fluid-ounce, which is about one ounce by weight, to be dispensed in an amber-colored bottle wrapped in dark paper, in order to protect the drug from the light. When the patient is moving about he can carry the little vial in his vest-pocket and take a few whiffs of the vapor from time to time. Under other

circumstances it should be kept in a cool place, to avoid the decomposition that eventually occurs under the influence of even moderate heat. Some little care is necessary to see, in the first place, that the druggist dispenses a good preparation. Of several brands upon the market differing widely in price, both pharmacist and patient are likely to prefer one of the cheaper products, unless cautioned otherwise. The drug must be chemically pure, or it soon becomes worthless, and I know of but one brand, that made by a well-known German chemist, that can be relied upon. In the second place, the patient must not continue to use a preparation that has undergone decomposition from unavoidable exposure. So long as it is fit to use, the ether will remain light in color and retain its characteristic odor, which, to me, suggests horseradish. When the liquid has become deep-brown in color, or the odor has lost its pungency, the drug has ceased to be therapeutically active by inhalation.

The method described, while convenient and applicable in every nearly case, does not give accurate dosage. For the latter purpose, when deemed essential, five or six drops with a teaspoonful of water may be placed in a wide-mouthed jar, and the patient may inhale the air from the upper portion of the jar. The liquid ether, being heavier than water, sinks to the bottom, whence the vapor gradually rises, diffuses through the air in the bottle, and is inhaled. Ethyl iodid alone, or mixed with terebene, alcohol, creasote, chloroform, menthol, thymol, or any combination of these and similar agents, may be placed upon the sponge of a Yeo respirator and inhaled in that way, as described by me in THE MEDICAL NEWS for October 11, 1884. As the drug is expensive and highly volatile, methods that restrict its diffusion through the atmosphere are, however, as a rule, to be preferred.

In any case in which the local effect of iodine upon the air-passages is desired, or in which it is necessary to get a constitutional iodine-effect, without resort to the stomach, the inhalation of ethyl iodid offers a convenient and effective means of accomplishing the purpose. It is thus of use in syphilis, and especially in cases of syphilitic inflammation or ulceration of the nose, mouth, and throat. It is of great benefit in tuberculosis of the larynx, and in pulmonary tuberculosis, at any stage of the disease, but especially when local stimulation and disinfection are desired. In subacute and chronic nasal catarrh, in some cases of hay-fever, in subacute laryngitis and subacute bronchitis, and in chronic laryngitis and chronic bronchitis, when a sedative, sorbefacient, and disinfecting agent is desired, inhalation of a mixture of equal parts of terebene and ethyl iodid gives most satisfactory results. Ethyl iodid is extremely useful in ozena and in fetid bronchorrhea. It has been employed with apparent benefit in asthma and in acute croupous pneumonia and acute broncho-pneumonia of various types. In one case of whooping-cough in an adult, it was apparently of service. It may be introduced into the Eustachian tube and middle ear by means of a Politzer bag and catheter.

To get the full benefit of the drug it must be used frequently and persistently. Thus, in cases of pulmonary tuberculosis I have had patients keep up the daily inhalation for two, three, or more years. While in cases of active disease, the inhalations are sometimes practised so



often as every half-hour, in convalescent cases, or in cases of tuberculosis not showing active progress of lesions, the intervals are proportionately lengthened. Two hours constitute the average interval. Three times daily are sufficient in some cases. Some patients can inhale the vapor of ethyl iodid for ten or fifteen minutes without experiencing unpleasant effects. Others feel slight vertigo after inhaling for a minute or two. Ordinarily, I tell the patient to inhale for five minutes, unless vertigo is produced.

#### JUGULATING GONORRHEA IN ITS INCIPIENCY BY MEDICATED TAMPONS.

BY R. N. PITTS, M.D.,  
OF PITTSBORO, ALA.

My experience has been very unsatisfactory in treating gonorrhea by means of injections and internal medication. In the great majority of cases the disease will, in spite of treatment, invade the prostatic portion of the urethra, the seminal vesicles, and the bladder. When gonorrhea attacks the deep urethral structures it is a mooted question if there are ever many cases cured. Gonorrhea is a disease that will not only cause the patient much concern, but will also often discourage the physician on account of his inability to cure.

It is my opinion that all flattering statements of curing gonorrhea by internal medication ought to be taken *cum grano salis*. The main point in treating gonorrhea by tamponing the urethra in order to be successful is to begin when the diagnosis is first made.

1. The first step to be taken is to have the patient urinate.
2. Wash out the urethra to a depth of four or five inches with warm boiled water.
3. Use a 4 per cent. solution of cocain if the urethra is very sensitive.
4. Slit the meatus, if it is not large enough to admit a steel sound as large as the urethra.
5. Introduce a metallic tube the full size of the urethra to a depth of four or five inches.
6. Introduce into the urethra through the tube a cotton tampon that has been saturated in a 1:20,000 solution of mercuric chlorid. Each tampon should be of full size, and have a silk cord tied to it, so as to hold it in position and to facilitate its removal.
7. Inject through the tube upon the tampon a few drops of the mercuric solution by means of a long aspirating needle and syringe. After the first tampon has been deposited in the urethra, draw out the tube just a little, and tampon and inject until the meatus is reached.

The strings on the tampons should be successively longer as the meatus is approached, so that they can be withdrawn in the inverse order of that in which they were introduced. If they become troublesome the tube may be withdrawn and reintroduced by their side.

The tampons ought to be kept in the urethra as long as they can be borne.

After the first tamponing there will be a thick, yellow discharge, which will have lost its virulence after a few tamponings. The tamponing ought to be done at least every seven days.

Between tamponings, the patient should be given a

mild injection of plumbic acetate and morphin. Oil of sandalwood given by the mouth will aid materially.

It is my opinion that the *modus operandi* in treatment with the tampon is that it changes a specific into a non-specific urethritis which is easily cured by means of mild astringent injections. The average length of time consumed in the cure of eleven cases has been twenty-five days, with absence of sequelæ.

#### MEDICAL PROGRESS.

*The Proteids of Nervous Tissue.*—HALLIBURTON (*Journal of Physiology*, vol. xv, Nos. 1 and 2, p. 90) has found that the normal reaction of nervous tissues is alkaline. The alkalinity diminishes after death and may be replaced by an acid reaction. This is most marked where there are most cells, namely, in the gray matter. Quantitative determinations show that proteid matter is a very important constituent of nervous structures. The average amount of proteids in the solids of the gray matter is over 50 per cent. It is less in the white matter and in parts like the spinal cord, which contain large quantities of white matter. It is still less in nerves. The gray matter is also the poorest in solids; nerves the richest. In any region, like the spinal cord, where there is a mixture of white and gray matter, it will be found that the percentage of water, the proportion of proteid in the solids and the proportion of gray matter vary directly the one with the others. Qualitative examination of this proteid matter shows that the proteids present are three in number. They differ in temperature of heat-coagulation, in the readiness with which they are precipitated by neutral salts and by acetic acid; one of them contains phosphorus and is a nucleo-albumin, so differing from the other two, which are globulins. The most important characters of these proteids are the following: (a) This proteid is a globulin; it may conveniently be termed neuro-globulin *a*. It is coagulated by heat at the low temperature of 47° C. (116.6° F.), and is analogous to similar globulins found in all cellular structures, such as cell-globulin *a* of lymph-cells, paramyosinogen or musculin of muscle, hepato-globulin *a* of the liver, and kidney-globulin. This proteid seems to be as constant a constituent of protoplasmic structures as the nucleo-albumins are. It is precipitated by a comparatively small percentage of such neutral salts as magnesium sulfate. It is not precipitated by weak acetic acid. It contains no phosphorus in its molecule. (b) This proteid is a nucleo-albumin. It can be readily prepared from nervous tissues by making a saline extract, but under these circumstances it is mixed with the other proteids. Attempts to obtain it by the sodium-chlorid method fail. It may, however, be prepared in large quantities by precipitating an aqueous extract of brain by weak acetic acid. The supply obtainable from white matter is small. It is coagulated by heat at a temperature of from 55° C. (131° F.) to 60° C. (140° F.). Like globulins it is precipitable by saturating its solutions with neutral salts; but more salt is necessary than in the case of neuro-globulin *a*. It contains 0.5 per cent. of phosphorus. After subjection to gastric digestion an insoluble residue of nuclein remains behind. Dissolved in dilute sodium carbonate and injected into the vascular

system of rabbits it causes extensive intra-vascular coagulation. (c) This proteid is a globulin. It may conveniently be called neuro-globulin  $\beta$ , and is closely analogous to the hepato-globulin  $\beta$  of liver-cells. It is coagulated by heat at from 70° C. (158° F.) to 75° C. (167° F.); it is precipitable by neutral salts, but requires complete saturation with magnesium sulfate to precipitate it entirely. It is not precipitable by weak acetic acid, like the nuclein just described, and contains no phosphorus in its molecule. Peptone, proteose, myosin, albumin, and fibrin-ferment are not obtainable from nervous tissues.

**Perforating Appendicitis with Unusual Symptoms.**—CABANES (*Montpellier Médical*, 1893, No. 4, p. 618) has reported the case of a man, twenty-three years old, who came under observation in an attack of measles. He was of robust appearance and had a good family history. Some ten months previously he had had an attack of enteric fever. The attack of measles pursued an uncomplicated course. On the thirteenth day, as the man was about to be dismissed, he was suddenly seized, after supper, with vomiting and a feeling of general malaise. Investigation disclosed the fact that for two days there had been looseness of the bowels, which the patient had concealed in order to escape a restriction of his diet. The general aspect was one of depression, with dyspnea, anxiety, elevation of temperature, and acceleration of pulse. Examination occasioned great distress. The abdomen was relatively soft; there was some gurgling; there was complaint of general abdominal pain, with special localization in the hypogastric and lumbar regions. On percussion, dullness was elicited over the bladder, but the catheter brought away only a few drops of urine. A boric-acid injection was easily made, the fluid returning through the catheter. The symptoms gradually became more profound; the vomiting continued; the anuria persisted; the diarrhea was troublesome. The patient occupied the dorsal decubitus. From time to time, however, he would abruptly turn upon his left side, as if to relieve intense pain, but soon returned to his original position. The dyspnea became intense and the small pulse reached 136 in the minute. The deep temperature rose to 104°, while the extremities became cyanotic and cold. At this stage the patient became unconscious and death supervened. Upon post-mortem examination, the thoracic organs were found quite healthy. The intestines were distended with gas, but otherwise presented a normal appearance in their upper part. The lower portion of the bowel, however, was hyperemic and presented disseminated areas of redness. Loops of small intestine occupied the pelvis, where they were bathed in a sero-purulent effusion, in which the vermiform appendix, which was seven inches long, was found floating. The organ was attached to the inner aspect of the cecum at the level of the superior pelvic strait and a little in front of the right sacro-iliac articulation; by its free extremity it was attached to the right aspect of the rectum by a band of mesentery. The mesentery was thickened at the lower extremity of the appendix, which itself was swollen to the thickness of a thumb. Upon the anterior surface of this extremity was a perforation as large as the head of a pin. The opinion is expressed that the antecedent attack of enteric fever may have had a predisposing

influence in the development of the conditions found, a state of muscular atony permitting the entrance into the appendix of irritating and toxic matters.

**Puerperal Eclampsia Treated by Bleeding and Gavage with Milk.**—MAYGRIER (*Journ. de Médecine de Paris*, 1893, No. 29, p. 350) has reported the case of a primipara, twenty years old, in which with the onset of labor at term intense headache set in, at first intermittent but subsequently continuous. The lower extremities were edematous; vision was impaired, and there was pain in the epigastrium and dyspnea. In the midst of these symptoms an eclamptic attack took place, shortly followed by others, vomiting occurring in the intervals. A large proportion of albumin was found in the few drops of urine that could be obtained from the bladder. The presentation was left occipito-anterior. The os uteri was dilated to the size of a silver quarter-dollar. The fetal heart-sounds could not be heard. An enema containing a dram of chloral was only partially retained, but was followed by no amelioration. In view of the gravity of the situation, with the anuria, the coma and other evidences of profound intoxication, thirteen ounces of blood were withdrawn from the right median cephalic vein. The coma was not modified. The labor, however, progressed rapidly. As soon as the cervix was sufficiently dilated, the membranes were ruptured and a dead child was expelled, the placenta following shortly afterward. There was no noteworthy post-partum hemorrhage. Two hours after the delivery the sixteenth convulsion occurred. The bladder still contained no urine. In the absence of the apparatus for subcutaneous transfusion of artificial serum or a physiologic saline solution, gavage with milk was instituted. As it was impossible to separate the patient's teeth, the tube was passed through the nares, five ounces of milk being introduced into the stomach every hour. In the course of two hours an ounce of highly albuminous urine was found in the bladder. Thereafter the quantity of urine progressively increased, while the proportion of albumin grew progressively less. The coma also gradually became less and less profound and the respiration less embarrassed. To further stimulate the secretion of urine a bath was given in water at a temperature of 100.4°, and followed soon after by a purgative enema. The woman now became conscious and able to swallow the milk. The swelling subsided; the albumin disappeared from the urine; the headache was no longer felt, and the woman was soon convalescent. Upon recovery it was found that she had no memory of the events of the eight or ten days preceding labor, while the memory of events during the previous two or three months was distinctly impaired.

**Dilatation and Hypertrophy of the Colon Fatal at the Age of Eleven Years.**—WALKER and GRIFFITH (*British Medical Journal*, No. 1700, p. 230) have reported the case of a boy, eleven years old, in which nothing unusual was noticed at birth, but within a few weeks the abdomen was observed to be unusually large. This enlargement gradually increased until it reached an enormous degree. There was little pain, but the bowels were usually constipated. The appetite was poor, breathing was embarrassed, muscular development was feeble, and the health varied with the degree of distention.

From time to time flatus would escape from the anus, with marked diminution of the swelling. Toward the close of life the boy suffered a good deal of pain, and wasted considerably. He died suddenly while an enema was being administered. At the post-mortem examination the body was found much emaciated, the lower part of the thorax being greatly expanded, and thrown upward. On opening the abdomen nothing was seen but an enormous coil of intestine, which proved to be the transverse and descending colon, measuring twenty-three inches in circumference. The excessive dilatation extended to the sigmoid flexure, gradually diminishing, and leaving the rectum normal. The colon gradually became narrower toward the cecum. No constriction could be found. The small intestine was normal throughout its entire extent. Ascending and descending colon both had distinct mesenteries. There were no adhesions or other signs of an antecedent peritonitis, although the peritoneum was extraordinarily thick. The distention of the abdomen had caused the lower part of the thorax to be spread out and thrown up. The back of the diaphragm being fixed, the anterior edge was tilted up, so that the inferior surface of the liver looked directly forward. The distance from the supra-sternal notch to the top of the diaphragm was about two and a half inches, the lungs and heart being compressed into an entirely inadequate space. The immediate cause of death was concluded to be the embarrassment of the enfeebled heart's action by the distention of the abdomen. Histologically the mucous and muscular coats of the affected bowel were found to be greatly thickened, with atrophy of the secreting structure. The sequence of events was supposed to be a chronic colitis, with undue formation of gas and secondary thickening of the walls of the bowel.

**Congenital Hemophilia; Fatal Hemorrhage from the Conjunctiva**—MÜLLER (*Archiv für Gynäkologie*, B. xlv, H. 2, p. 269) has reported the case of a female infant of a primipara, born at the end of the ninth month and measuring 17.25 inches in length and weighing four pounds. Following labor, one drop of a one per cent. solution of argentic nitrate was instilled into each eye. On the afternoon of the same day a scanty white discharge was observed about the eyes, unattended, however, with swelling or other change in the lids. With the possibility of a blennorrhea in view, a second drop of the silver solution was instilled into each eye at night. Even before this was done the ocular secretion was already noted to be blood-tinged. On the following morning the eyelids were found covered and closed by blood-clots, upon the removal of which a few drops of red blood welled up between the closed lids. Neither lids nor conjunctiva presented any injury or any change (swelling, redness, slough), but upon the conjunctiva there appeared one drop of blood after another, although the source of hemorrhage could not be discerned. The bleeding persisted in spite of repeated irrigation and the frequent application of ice-compresses. At night on the second day a compressive bandage was applied. Careful and skilful examination failed to disclose any lesion about the eye; neither could any lesions of the adjacent mucous membranes be detected. The bandage was continued and irrigation with chlorin-water was added,

but the hemorrhage would not yield. On account of the delicacy of the structures and in the absence of bleeding points it was not deemed justifiable to apply a solution of ferric chlorid or the actual cautery. The child remained fairly bright until the third day, taking its nourishment from the mother's breast, despite the persistence of the bleeding. Finally, however, the anemia became so profound that death took place on the evening of the fourth day. The post-mortem examination disclosed the existence of no gross lesion, but only the appearances of general anemia. Müller adds that in another case of the same kind he would practise subcutaneous or intra-venous transfusion and close the lids by means of a continuous suture.

**Extirpation of an Hypertrophied Spleen.**—TREUB (*L'Union Médicale*, July 13, 1893, No. 6, p. 65) has reported the case of a woman, forty-eight years old, who had borne seven children and had aborted five times. Seven years previously, ten weeks after delivery, she was seized with abdominal pain, which had continued with varying intensity and was less upon activity and worse upon recumbency. The pain was continuous; when it was at its worst the abdomen would become distended and the urine would be passed in drops. The distention of the abdomen was said to occur regularly every spring and autumn. Menstruation was profuse but regular, and unattended with pain. The last menstrual period had been followed by feverishness, abdominal pain, and nausea and vomiting. On examination of the abdomen an oblong tumor of irregular surface and solid consistence was found in the median line. The mass was movable laterally but not vertically, and extended upward to the level of the umbilicus; it was distinctly circumscribed laterally and superiorly, but was lost in the pelvis below.

On bimanual examination the tumor was found to be situated in front of the uterus, which was slightly enlarged, and adherent by its anterior surface. The liver occupied its usual position. The right ovary could be doubtfully felt, the left not at all. A diagnosis of cyst of the left ovary was made and celiotomy undertaken. The tumor was found adherent to the abdominal wall anteriorly and covered by loops of adherent intestine. The pelvic peritoneum gave evidence of inflammation. The ovaries were edematous and covered by fibrinous deposits. In color and form the freed mass resembled the liver, but this organ proved upon direct palpation to be in place. It was also thought that the spleen could be felt; so that it was concluded that the tumor was a neoplasm of the kidney. The pedicle was tied and the mass removed. Examination of the body showed it to present histologic structure of an hypertrophied spleen, partially necrotic and in process of further destruction. Recovery was interrupted. Three weeks after the operation the woman was dismissed. At no time was there any evidence of leukemia.

**Rumination in Man and its Relation to the Act of Vomiting.**—From a study of four cases of rumination in man and a survey of the literature upon the subject, SINGER (*Archiv für klinische Medizin*, Band li, Hefte 4 u. 5, 472) maintains that a distinction cannot be made between rumination and regurgitation, both, as observed



in human beings, being the expression of a nervous constitution. The immediate cause of the act is a relative insufficiency of the cardia, which manifests itself intermittently and is related to the quality and quantity of the contents of the stomach. The mechanism consists in the aspiration of the gastric contents by the exhaustion of the air in the thorax at a time when the cardia is relaxed, this exhaustion being maintained by the inspiratory position of the chest, with simultaneous closure of the glottis. The process may be restrained by forced expiration. The cardiac antrum corresponds to a demonstrable dilatation of the esophagus in its cardiac portion and is a result of mechanical over-distention from the swallowing of large boluses of food. It furnishes the anatomic basis for the defective closure of the cardia. Rumination is physiologically to be distinguished from vomiting; the only condition that can be compared with rumination is the esophageal form of nervous vomiting. The state of the gastric functions is variable and is but an accidental feature of the symptom-complex of rumination; abnormalities of secretion are but the result of the neurosis upon which the rumination itself depends and only require symptomatic treatment. Rumination occurring in cases of esophageal diverticula and total dilatation of the esophagus is to be differentiated from genuine rumination by the conspicuous difficulty in swallowing and the retching that attends the regurgitation; in the case of a diverticulum the pepsin and the rennet-curdling ferments are absent. The treatment of rumination must be based upon the neuropathic disposition and upon individual conditions. It is important to abjure hasty eating and excessive drinking and to enjoin the voluntary suppression of the act. As an adjunct measure, tonic treatment, calculated to increase the tonicity of the cardia, is to be instituted.

**Bronchial Casts in a Case of Mitral Regurgitation.**—

LAWRENCE (*Lancet*, No. 3648, p. 247) has reported the case of a boy, nine years old, who some nineteen months previously had an attack of "inflammation of the heart." Thereafter there had been weakness and an inability to keep up with school-work; but no dyspnea or cough. The child was small and poorly nourished, his skin harsh and dry. At the apex of the heart a loud systolic murmur was heard, but nothing abnormal was detected in the lungs. A short time later the child was reported to be spitting up "queer things like little trees," which upon examination proved to be bronchial casts. Just below the angle of the left scapula a small patch of consolidation was detected. The expectoration of the casts continued from time to time, one or two being ejected daily for several days and then none for a month or so. The casts were white and occasionally streaked with blood, which could be readily washed off. Sometimes they were not perfectly round on section, but flattened as if the individual cast had not completely occluded the bronchus. The expectoration of a cast was preceded for some hours by a tickling cough. Ascites and a left inguinal hernia developed. The area of consolidation previously present could not be found, but there was a new area of similar size in the second right intercostal space. There was no dyspnea or pyrexia. Treatment by rest in bed and the administration of

strophanthus and nux vomica was followed by general improvement, but the area of consolidation increased in size until finally the whole upper lobe of the right lung became solid. Now the respiration became accelerated and the temperature elevated. Cough was troublesome and expectoration copious, the expectorated matters consisting of bronchitic froth and shreds of dirty-white material. Emaciation and weakness progressed, and amid the signs of pulmonary congestion and edema death took place. An autopsy could not be had.

**Symptoms Caused by the Electric Light.**—FREELAND

(*British Medical Journal*, No. 1700, p. 234) has reported the case of an electrician, who was suddenly seized with intense pain in both eyes and severe headache. The eyes were suffused and the conjunctivæ congested. There was marked photophobia and partial blepharospasm. The skin was hot and dry. The temperature was 102°. The free instillation of a five per cent. solution of cocain was soon followed by a subsidence of the pain and a desire to sleep. After little more than an hour, however, the man became wildly delirious. The administration of fifteen grains each of potassium bromid and chloral was followed in half an hour by quietness and sleep. An ice-bag was applied to the head. The man slept for several hours, meanwhile perspiring quite freely, and on awaking felt much refreshed and was quite rational, although somewhat shaky. The pain in the eyes and head had gone, but the eyes were still suffused and injected and intolerant of light. The temperature was normal and the skin moist. The man was kept in a dark room for the remainder of the day, and on the following morning was able to resume his usual occupation. It was learned that he had had charge of a powerful electric search-light and had neglected to wear protective goggles.

**Changes in the Urine after Administration of Thyroid Extract.**—ORD and WHITE (*British Medical Journal*, No.

1700, p. 217) report the result of observations in a case of myxedema in which twenty drops of a glycerin extract of the thyroid body of the sheep (an equivalent of one-sixth of a gland) were administered daily, the conditions before and during the experiment being otherwise the same. It was found that the urine was increased in volume; that the nitrogen excreted in the urine exceeded the total quantity of nitrogen in the ingested food; that the elimination of phosphoric acid and of chlorin was practically unaffected; that the increased excretion of nitrogen was chiefly in the form of urea; that the body-weight rapidly diminished; and that the body-temperature was raised.

**A Bullet in the Orbit for Twenty-three Years.**—ROOSE

(*Rev. gén. d'Ophthalmologie*, 1893, No. 7, p. 309) has reported the case of a man, fifty years old, who related that he had lost his right eye in the battle of Sedan in 1870, in consequence of an injury from a fragment of a shell. The patient complained of some pain, and the stump presented an appearance of redness. Examination disclosed a metallic body at the fundus of the orbit, and upon the patient being anesthetized a leaden bullet, almost an inch long and weighing more than an ounce, was removed. The visual acuity in the remaining eye was normal and the fundus presented no lesion.

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SATURDAY, SEPTEMBER 23, 1893.

**IN SOCIETIES AND CONGRESSES LET US HAVE  
LESS "SCIENTIFIC WRITING" AND MORE  
PRACTICAL WORK IN PREVENTIVE MEDICINE.**

It is as important for human progress that the science already gained should be made practical, brought to effective use by the people, as it is that new science should be acquired. One may even question if it is not more important, just as in ethics the greatest need is not that we should know more accurately what is right, but that we should better practise that which we already know. With medicine it is as with every other science—it is easier, at least more common, to strain after unacquired truth than it is to bring down to work-a-day realization and use the truth we have long since gained. Hence we have to deplore the very palpable fact that the meetings of medical men are almost entirely given to the reports of theoretic and acquired medical truth, to the entire neglect of the application to humanity's daily needs of the knowledge that is certain and that should be made to yield good results if put to use. At our congresses there are endless papers on the theory, diagnosis, and treatment of individual cases of produced disease when these cases shall be presented to the physician; but there it all ends, except in so far as the individual physician is concerned, and the members

return to their work to await the specific cases of disease that may turn up.

In this, two things are forgotten—the duty physicians owe as a profession to the community as a whole, and the duty they owe to their profession to increase its dignity and prestige. Preventive medicine and hygiene, the education of the community in the knowledge and the practice of the laws of health, are duties sadly neglected by us. There is a beginning in this respect, it is true, an awakening perception, but it is so far only feeble and inconstant—no virile grasping with the stubborn reality. At the last meeting of the Ophthalmologic Section of the American Medical Association a committee was appointed to draft and secure the passage of State laws to prevent the appalling unnecessary number of cases of blindness due to ophthalmia neonatorum. This committee has undertaken the work with energy, and the results of its action will ultimately be of incalculable good. Some State societies have instituted working committees with similar motives and methods as regards the prevention of other diseases, but we here plead for a tremendous extension of the plan, and a radical change of the usual theoretic meetings that end in talk, into consulting and determinative gatherings largely devoted to the needed work of planning and carrying out practical medical work in every community.

Every medical society, local or general, should organize committees with some definite practical work before each for which the members are peculiarly fitted, and whose action should be pronounced upon by the committee of the whole. There are hundreds of legislative reforms and needed advances that only await the authoritative action of corporate bodies of medical men to insure the respectful attention and indorsement of our legislators. The question of pure, germ-free milk, for example, will never be settled until the profession speaks clearly and acts authoritatively about it. The secret-nostrium traffic and the unpatent patent-medicine disgrace can never be stamped out except by our common determination and united action. The hordes of despicable quacks that sprout like ill weeds in our unploughed fields, will never be rooted out unless we act. The doubtful and poor immunity we now have against cholera by means of Governmental control of quarantine has been made possible almost alone by the action of one or two societies of medical men. Every city has its pecu-

liar unhygienic scandals, wretched sewerage, polluted water, cobble-stone pavements, death-bringing unnecessary noises, hospital abuses, proprietary medical colleges, etc., that should be stigmatized with the condemnation of medical societies, and remedied by their antagonism.

The summarization of the whole suggestion lies in the teachings of cool-headed statisticians and their figures. According to our death-rate there are annually occurring in a city like Philadelphia, *i. e.*, in every million inhabitants, something like 2000 or 3000 unnecessary deaths. These deaths are due to criminal negligence. Now, more than this, according to Dr. FARR, for every death there are on an average three years of sickness. It is not primarily or chiefly our fault that these 2000 useless and expensive deaths take place and the 6000 years are uselessly and continuously wasted. But it is our duty and our privilege to stop it all. Instead of only trying to cure the person after he is sick, instead of trying to prevent the single death by pulmonary tuberculosis, it is also our high function to prevent all the sickness possible and all the pulmonary tuberculosis whatsoever, and so all the needless deaths. Let us destroy the bacilli instead of merely writing papers about them.

The undertaking of such work by medical societies is also needed for other reasons. There are few professional evils more evident than that of the aloofness of medical men as a body from their lay fellows. It is at present difficult or impossible for the ordinary citizen, however intelligent, to get any adequate or sympathetic comprehension of our aims and methods. Enlistment in these commendable practical hygienic measures will serve to bring physicians and their fellow-men into a desirable community of understanding and mutual respect.

It is also one of the best methods of out-rooting quackery of all kinds. The scandalous condition of legislative indifference to medical reform, the diabolism of legislative control by the quacks, all this and more awaits our united practical protest. We can stop it if we will. When the community sees a united band of men unselfishly working for its welfare, sympathy and support will at once come to that band, and the self-seeking will be left to peddle their homeopathic pillules, offer their infallible secret nostrums, or otherwise pander to the fads and foibles of the little remnant of magic-mongers who will always be with us to remind us of the barbarism whence we have emerged.

#### DANGER FROM CANNED GOODS.

SUGGESTION of danger from canned goods is not new to sanitary literature. Considerable attention has been paid to the subject both in this country and in Europe, yet beyond showing by qualitative tests the occasional presence of some of the less dangerous metals, no very extended results have been obtained. The French sanitary authorities have discussed at some length the extent and effect of the employment of copper in greening vegetables, but, in spite of this, the exact effect of this practice is in doubt. HEHNER, a well-known English food analyst, made in 1880 a series of analyses of both meats and vegetables, with the result that in many cases tin was found dissolved in the food. He also studied the effect of tin salts on animals, but the doses used were rather large. It has been noted in all investigations that unless the quantity of lead in the plate or solder be large, tin is dissolved in larger amount—a fortunate circumstance, for this metal is far less dangerous than lead.

Accurate and extended information of interest not only to the sanitary chemist but to the physician is, however, furnished by a recently-issued bulletin of the United States Department of Agriculture, in which are given not only the results of tests for metallic impurities and artificial preservatives in many brands of canned vegetables, but also determinations of general food value. The information furnished is anything but pleasing. Deliberate adulteration, and inferiority in quality are frequent. Salicylic acid and sulfites are freely used, obviously to cheapen the process of manufacture by permitting less care in sterilization. Even the material from which the cans are made is often impure; some samples of the plate showed over 11 per cent. of lead.

Four metals—copper, zinc, lead, and tin—possessing greater or less degrees of toxic power, are found in canned goods. Copper is frequently directly added to give to the vegetables a good green color, especially in peas. In thirty-eight samples purporting to be foreign, copper was found in thirty-six. American peas were not so largely colored; thirty-two out of forty-three samples contained either no copper or very small quantities. Noteworthy quantities of zinc were found in some cases, this being used in a greening process the details of which are not published. Zinc chlorid used in the soldering is also a cause of contamination. Tin is, of course, to be expected, but is found in varying amount. There is so little clinical information as to the



effect of repeated small doses of tin, that a judgment can scarcely be passed on the analytical data in this prospect. With regard to lead no doubt exists. It is probably the most insidious and frequent cause of chronic metallic poisoning. It is introduced into canned goods not only by the solder but also by the use of inferior grades of tin-plate. The adulteration of this article has been alluded to above. It appears also that an appreciable amount of solder often exists in such a finely divided form that it cannot be separated from that in solution, but it may be a question whether such suspension will not be capable of causing chronic poisoning. Not the least interesting and important source of lead is from the rubber rings used in completing the sealing of glass jars. Lead compounds, sulfate, oxids, and carbonate are largely employed in the preparation of rubber goods, and consequently the glass can, which is otherwise so satisfactory a substitute for the tin, becomes in practice a source of even greater danger. Glass bottles with lead tops are used by some firms, and one brand of French manufacture showed in the same bottle about twelve milligrams of lead, fourteen milligrams of copper and an unusually large amount of salicylic acid. The report gives elaborate data as to the food value of the various brands. It is not necessary to discuss this question in detail, and it will suffice to say that the results all indicate clearly that canned goods are most expensive forms of food.

The antiseptics found were salicylic acid, acid sulfites, and salt, the latter partly as a condiment, though occasionally in large amount. It is scarcely worth while to discuss the sanitary relations of the first two. Whatever may be thought of their direct action it is evident that their very function as antiseptics depends on their power to interfere with the actions of microbes and enzymes, and hence with digestive actions. There seems to be no doubt that their employment should be forbidden. Further steps should be taken to prevent the use of adulterated tin-plate or rubber washers containing lead compounds. These conditions represent the most serious phases of an industry which has arisen within this generation, and has reached an extent that is astounding to those who have not followed its development. With the evidence presented by this report, covering as it does only part of the field—for canned meats, catsups, and other classes of preserved food remain to be examined—some idea is formed of the extent to which chronic poisoning

and digestive derangements are brought about. It is depressing also to note the indifference which manufacturers show concerning the quality of their goods.

## EDITORIAL COMMENTS.

*Local Quarantine.*—The decisions on the subject of quarantine, other than those touching the quarantine of vessels, have been found by research to be very few indeed. The increasing attention which is almost everywhere being given to the subject of health, however, makes anything determined with regard to it very important. For these reasons, the recently rendered opinion of the Supreme Court of South Dakota in the case of *State v. Butts* (19 L. R. A. 725) is of much interest. Butts was convicted in the County Court of breaking a quarantine order of the County superintendent of health, which order and quarantine regulation prohibited him from leaving his own residence until further orders or permission of said superintendent of health, he having gone from his house upon the public streets, thereby exposing the public, as it was alleged, to the danger of a contagious and infectious disease—diphtheria. But the judgment of the lower Court was reversed, because the Supreme Court said that the openly going from his residence upon the public streets did not make the accused a criminal offender against the quarantine order, unless he knew of its existence, while it was not alleged in the information that the order was served upon him or that it was in any way brought to his knowledge, directly or indirectly. All the matters charged in the information might indeed be proved and yet entirely fail to show the guilt of the accused, because his guilt would depend upon his knowledge that the act was prohibited, and was therefore wrong. Such an order is unlike a law, knowledge of which is charged against everyone. The order might have been duly and properly made, and after it was so made the accused might have done the very thing which the order prohibited and still be innocent of offence, unless he knew of such prohibition. Going from one's residence upon the public street is ordinarily an innocent act. To make it criminal, it must be done within knowledge, either actual or imputed, that it has been authoritatively forbidden.

*The Index Medicus.*—The completion of the first twelve volumes of the *Index Medicus* afforded the publisher and editors an opportunity to give a revised list of the medical journals and transactions regularly indexed for this publication. We have gone to some trouble to count these in order to give the imagination a help in realizing the vast literary labor of a serial character carried on by the profession. Leaving out those of a semi-scientific, purely commercial, or popular order (these will make up for some in the list not accurately or wholly "medical"), we are astonished to find the total number is 1119!

The medical profession should at least acknowledge the debt of gratitude due the editors of the *Index Medicus*, Drs. Billings and Fletcher, but more especially due the publisher, Mr. Geo. S. Davis, who nobly persists

in paying the heavy expenses of the publication with little hope that the few subscriptions will ever equal the outlay. Such an action deserves unqualified thanks, though coupled with shame in confessing that, while we can support hundreds of so-called medical journals, we have to be the recipients of a charity (however willingly given) for the execution of a work so scientific and so useful to every literary medical man.

**A Disgrace to the Exposition.**—At the headquarters of the Homeopaths in the Exposition Grounds at Chicago, a notorious advertising firm has located itself and makes the Exposition a means of advertising its business. Both from these headquarters and far and wide it sends notices like these: *Rupture Cured or No Pay and No Pay until Cured. No Detention from Business. No Operation. Examination Free. The E. O. Miller Company, Homeopathic Headquarters, just west of the Woman's Building, World's Fair Grounds, Chicago.*

*The Medical Century* (a homeopathic publication), with commendable honesty, is ashamed of this, but confesses that the firm subscribed to the building on condition that it should have the place given it, and that one of the directors is the "attending surgeon" of the Miller Company, as also a member in good standing of the American Institute of Homeopathy.

**The Universal "Shot-gun" Elixir!**—That excellent serial the *Provincial Medical Journal*, in commenting on the multiplication of fluid extracts and other preparations of animal glands and tissues, suggests that the modern therapeutists imitate Shakespeare's prescription, as given by the Witches in "Macbeth":

"Round about the cauldron go;  
In the poisoned entrails throw," etc.

and in place of administering single remedies, use compound ones, placing in one cauldron, with due antiseptic precautions, the extracts of testicles, ovaries, brain-tissue, pancreas—all the *-ines* that modern medical atavism has imagined, so that we shall always be able to hit the mark, some one of the miraculous remedies going straight to the affected organ and rejuvenating it for a new life-work!

**Opium in the New Pharmacopeia.**—The strength of opium preparations as prescribed in the new pharmacopeia is slightly different from the requirements of the pharmacopeia of 1880. Powdered opium is to contain from 13 to 15 per cent. of crystallizable morphin—from 12 to 16 per cent. having been the former standard. The average remains the same, but the limits of variation have been reduced. *Acetum opii*, *tinctura opii*, and *tinctura opii deodorata* are each to contain one gram of opium of from 13 to 15 per cent. morphine (cryst.) in ten cubic centimeters, a slight reduction in the strength of the vinegar, a slight increase in that of the tinctures. *Tinctura opii camphorata* is to be one gram in 250 cubic centimeters, instead of one gram in about 257 cubic centimeters. These changes are all improvements.

**Dr. Reeves and "The Amick Cure."**—Dr. James E. Reeves, of Chattanooga, Tenn., has been arrested on a warrant sworn out by Dr. Amick's representative, on the

charge of sending defamatory matter through the mails, and is bound over to Court under bond of \$1000. Dr. Reeves says he is not in the least disturbed and that he shall go on with his exposures "though there may be as many devils in the way as there are tiles on the houses of Chattanooga." "I welcome the opportunity to expose the whole thing and make a Waterloo of it. I have twenty-one letters from people whose names appear in the Amick pamphlet showing the cure to be worthless."

**Alligatorine** is the latest! The homeopaths have beaten us. They have made the toad and the fox yield "most valuable therapeutic products," and now the prepared fat of the alligator, "saponified by alcoholic potash, the soap decomposed by hydrochloric acid, and the fatty acid mixed with cotton-seed oil," is highly recommended. Has any daring investigator prepared any extracts from the brain of our long-eared, four-footed friend, the ass? The balloonists and those afflicted with mountain sickness should get some extract of eagle's-wings, and surely mole's blood or flounder serum would at once cure caisson-disease.

**The Struggle for Pure Water in Sacramento.**—The *Occidental Medical Times* has done the profession an honor and the public a great service in publishing a special number, or pamphlet, devoted entirely to the question of the pure-water supply of Sacramento, and looked at from every standpoint—economic, sanitary, etc. Those interested in such questions should see and imitate the labors of Dr. Parkinson and his co-workers, lay and professional—to whom, congratulations!

**Microbes in the Mails.**—PROF. UFFELMAN, of Rostock, Germany, sent a letter infected with cholera-bacilli through the mails, and the bacilli were found alive twenty-three and one-half hours later. On postal cards the microbes lived twenty hours in the mail-bags. On coins they died more speedily. Of what use was the dangerous experiment? The moral of these experiments is said to be obvious. The immoral is glaring!

**Shorten the Nomenclature!**—

"Who says convolution,  
When he might say gyre,  
Would cry conflagration!  
When he might shout fire!"

## SPECIAL ARTICLE.

### MEDICAL EDUCATION.

*An Address before the Harvard Medical Alumni Association,  
June 27, 1893.*

BY J. M. DA COSTA, M.D., LL.D.,  
OF PHILADELPHIA.

I HAVE often asked myself why it is that medical education is so discussed by the profession, why this never-ceasing upheaval. We do not see the education in law, we do not see the education in theology, a matter of constant dispute and agitation. And I have concluded that the keen interest, the deep feeling, which it

engenders, is really due to the state of medicine itself. The agitation is but a sign of the unrest in medicine we see everywhere. It is but a recognition of the spirit of research and investigation that is so conspicuous now, of the enthusiasm that is constantly adding new facts, almost new sciences. Medical education must be discussed, must be recast, since the groundwork on which medicine stands is being from day to day enlarged and strengthened. Let us, therefore, after all, be glad that the subject attracts so much attention. It attracts attention because medicine itself is a most progressive science.

We cannot congratulate ourselves on the state of medical education as it existed in this country some years since. There were, as there are now, many earnest and eloquent teachers; but the wretched system of going over the same ground year by year, the total inadequacy of the time allowed for preparation, the utter lack of laboratory and hospital facilities, made the condition of medical education a reproach instead of a subject of honest pride. Now it is becoming vastly different. There is, indeed, no self-respecting medical school which can stand the pressure of public opinion and go on in the forefatherly ways. The sacrifices, the struggles, of Harvard and of those great schools that stood by her side in honest rivalry, schools that appreciated the inherited wants of the past and the needs of the present, have not been in vain. They have done what the profession of medicine wanted them to do, and have done it splendidly.

The chief difficulty in making a high standard universal lies in the number of the medical colleges. It is, indeed, a sorry admission that the medical schools in this country are the greatest enemy to medical progress, not in themselves, but in their number. Some years ago there were nearly three hundred. Now there are not far from one hundred and fifty; and they are dying at about the rate of three a year, without, it must be said, many mourners. A further reduction would be a national benefit. The reason they constitute in their number a bar to medical education is not only that in their struggle for existence the feebler ones tend to keep the general standard down, but that it is utterly impossible that all can keep pace with the requirements of modern medicine. How can all have well-equipped laboratories? Where can the clinical work be done on which the medicine of the day depends? The remedy lies in their amalgamation. Let the absurdity cease of small towns having three, four, six, of these struggling institutions, no one of which can have a vigorous life. The remedy also lies in the profession—in the stand taken by potent representative bodies and their authoritative action, in public opinion discountenancing the establishment of medical schools except where the development of the country proves them to be imperatively needed in fresh growing centers. Thus in time the preposterous disproportion of medical schools as compared with schools of law, of divinity, of engineering, will cease; and it will come to be recognized that there is nothing about medicine that calls for such a profusion of teachers.

There is now all over the country a growing disposition for the universities to take charge of medical teaching, and to develop their medical departments with all the zeal they give to the others. We see it in Michigan,

we see it in California and Colorado, we see it in Louisiana and in Texas, as strikingly as in our Eastern States. There is nothing but good in this. The power, the means, the spirit, of the university, go out to its branch. The university, in turn, gains by the reputation of its medical faculty, and by the recognition that medicine is an essential part of the new learning which leads on to the highest attainable civilization. Thus both are benefited. The future of medical education certainly lies in the universities, and in such great schools as can vie with them in clinical and other facilities.

But, as this state of things becomes more and more general, and the weak colleges disappear, the university has increased obligations. It must encourage, it must satisfy, the legitimate ambition of those who wish to become teachers, and who prove their aptitude. Throw open the doors as widely as possible, grant the use of the lecture-rooms, attach men of rising prominence to the university, accustom them to look upon her as their true mother. You need not fear. You will not have too many. Students are keen critics. It will be a survival of the fittest at the end.

You have in this great school adopted a four years' course. I observed a rivalry here between you, Mr. President, and you, Mr. Chairman of the Committee on the Medical School, who should be the one to announce its success to this Association. I am sure that there is not a member present who would not like to be in either of your places, and make this announcement; for it is one of great gratification to every member of Harvard, to every member of the whole profession in the United States. I am equally sure that, should the time come when Harvard calls for a fifth year, its loyal alumni would at once respond. Do not, however, understand me as thinking this necessary or even desirable. I believe that for the present you have done enough, and that the curriculum is sufficiently extended. I hope to see the advance in medicine, or rather, I should say, in medical education, going on at the other end. I want to see trained minds enter on the study of medicine. It is so much easier for a teacher to speak to, and to instruct those who have had good mental training. It is frightful to talk in an uphill manner to men—fortunately, now a diminishing proportion in medical classes—who are unaccustomed to thinking, and who show in their faces that they have to labor to understand. Therefore, I say again, that it is to the beginnings that we must look. Let us have preliminary standards of sufficient kind, and the curriculum will, in process of time, and with growing subjects, and with the wealth of the country aiding, take care of itself.

It is gratifying to know that the medical colleges are, with almost unanimity, moving in the direction of exacting certain educational requirements for matriculation. In the Report of 1891 of the Illinois State Board of Health it is stated that 129 colleges out of 148 in the United States and Canada have adopted some standard of general qualifications. It will soon be the universal rule. Even if the requirements are with many of the most shadowy kind, still they are requirements. They aim at securing mental training as a preliminary, and the whole means progress. The most desirable state of things would certainly be if, as a prerequisite to the study of medicine, a degree in arts and science be demanded.



But the country is not ready for this. It would exclude many who are fully competent to study and to profit by their studies. All we can now ask for is proof of sufficient mental training, and it would be best if this proof were forthcoming from bodies unconnected with medical teaching.

But, if we are to get our students of medicine from the universities and colleges of the country, we must be sure that these give us help. Here I fear I am treading on ground which has been gone over thoroughly; but I wish to record at least my individual opinion that, if you want medicine in its higher branches to flourish, if you want it to flourish through university influence and university support, especially if the universities are to become the general medical educators, the university must meet you more than half-way. You must have not simply a shorter course of preliminary study at these universities—and I am an advocate of the three years' course for the degree in arts and in science—but you must also have them in every way giving facilities to those who are desirous of choosing medicine as a profession.

The assertion that the medical classes show a smaller proportion of college graduates than was formerly the case I know to be true. I have followed the matter for some years; and the reduction, I find, is general. The Dean of the Harvard Medical School states that in 1884 the per cent. of college graduates in the Medical Department at Harvard was 53.9, and that in 1892 it was 28.2. At Columbia it rose from peculiar causes to 34.7 in 1891, and was 32.5 in 1892. At the University of Pennsylvania, the Medical Department of which is solving the same problems as Harvard in the same spirit, the college graduates were, at the session of 1890-91, 152 out of 582, or 26 per cent.; in 1891-92, 167 out of 693, or 24 per cent.; in 1892-93, 168 out of 835, or 20 per cent. In some of the medical departments of universities in which the proportion has not been very high there is much less difference to be noted. For instance, in the well-known University of Michigan, in 1882-83, in a class of 378, 40 were college graduates, or 10.6 per cent.; in 1890-91, in a class of 369, 39, or 10.5 per cent.; in 1892-93, in a class of 370, 35, or 9.4 per cent. There are sixteen medical colleges, as I learn from a recent instructive paper by Dr. Bayard Holmes, in the *Journal of the American Medical Association*, with no student enrolled who had obtained a literary or a scientific degree.

Yet I am quite certain that, while the number who complete their academic studies is less, the general average of those of mental training is much higher, and the number much greater who have been for a year or two at some of the higher educational establishments, but have left without graduating. I made it a point for years, while actively connected with a medical school, to inquire into this matter, and kept records that were convincing. This is, I think, only an additional argument for the universities and colleges to consider. The age at which they graduate young men is certainly too high for the professions, especially that of medicine, which requires a long period of special study. It is, undoubtedly, the chief cause why the graduates of colleges are diminishing in the medical schools. Why should the age be so high? Why, here, in a young,

rapidly developing country, where men want to, and mostly have to, get to work early, should we require this long preparation? I have taken some trouble to go over the reports of the universities of France and of Germany, and I am astonished to see the difference. The men who enter the professions, with their academic course completed, are, as a rule, nineteen years of age. In a work *On the German Universities for the Last Fifty Years*, by Professor Conrad, of Halle, he states that during a long term of years there was but 23 per cent., or, to speak accurately, 23.1 per cent. of men who were over twenty. We must attain the same here if we want to have college-bred men enter the professions. The colleges must recognize and take into account that professional work is itself a continuance of mental training and culture.

But this subject is too wide a one to follow further here. Let me return to the aims and results of medical education in this country. Vast good has been accomplished by the methods now gaining. It educates those who are trained by it before they see their patients; formerly they educated themselves largely off their patients. I need scarcely say that I am heartily in sympathy with the advance that is going on—the advance as to time required for the course, the advance as regards the subjects taught. But there are in all great movements periods of ebb and flow, of advance and retrogression. We are in risk of retrogression in trying to put too many subjects into the curriculum. The medical student cannot master them all. You cannot turn him out a finished article. The thing is impossible. Let him keep some of his angles. They will be worn off quickly enough when he gets into practice. Teach some subjects thoroughly and let the rest alone. Treat him less as a school-boy and more as a member of a university; develop in him the university idea. Allow him after the first year to choose for himself much more than he is now permitted to, with full knowledge of the subjects required at the final examination. And there is another matter allied to this on which I feel strongly—the constantly recurring examinations. I am utterly opposed to the everlasting examination of the poor medical student. Why cannot you take it for granted that he is developing? Why must you always pull him up by the roots to satisfy yourself that he is growing? We all know that the knowledge of examinations and real knowledge, knowledge that from training and use has become a part of the man, are not always the same thing; and, after all, you do not want to turn out medical prize oxen stuffed and fattened for examination, but medical men with thought, with power, with intelligence, and with love of work and of original investigation. Let us act on the belief that the medical graduate is a compound to be made by synthesis, not by analysis.

A good deal has been said here, and well said, about the desirability of endowing universities. I am sure I sympathize deeply. I think that if Dante is still at work on his *Inferno*, he ought to add a chapter on the tortures that shall await rich men who do not give large sums to universities and colleges. But, after all, it is not simply by endowments that institutions flourish. It is also by appreciating the great teachers they have, doing them every honor, treasuring them. A great teacher in medicine, as a

great teacher in anything else, is rare. Hold him dear when you have got him. Show him every honor. Advance him. He is a potent influence in life: his memory is a power. Who goes to Paris without thinking of Laennec, Andral, Trousseau, and Nélaton? Who visits Vienna and does not have before him Rokitansky, Skoda, and Oppolzer? Who can go to Berlin and not think of Langenbeck and Frerichs; or to London and be unmindful of Hunter and Cooper and Bright? Who comes to Harvard and does not remember the Jacksons and Bowditch and Bigelow and Clark and Ellis and Storer and Shattuck and many others of fame? Their memories go to make up the School, and continue from generation to generation. In these memories they have left much behind them. Some have left also, from their very households, worthy successors; but all have left that great influence which, like the unseen subtle ether, goes to form the rays of light that illuminate a great university. I have made it a rule in these remarks not to speak of the living; but I must make one exception. In the list of those in whose memories Harvard is rich—I find myself speaking almost as if he had passed to another world and bequeathed his immortal name—there is also Holmes. Who has struck a straighter, a keener blow for medical rights, for honesty in the profession, and against shams, than Holmes? He reminds me of one of those Eastern knights whose blade was so skilful that it severed the head of an adversary or cut him down to the saddle, yet he would keep together until he was touched, when he fell asunder.

But I must not be tempted by the interest of the occasion and the kindly warmth of your reception to say more. As I look around me and see the earnest faces of those who are fighting together life's battle in the same cause; as I see side by side the veteran whose name is honored everywhere and the young man who is still to win his laurels, united in one desire, eager all for helpful aid and to promote useful endeavor—it is not teacher and pupil I think of, but brother joined to brother, intent on upholding the beneficent influence, the traditions, the fame, of Harvard, and joyfully ranged around the glorious old banner that, on its crimson folds, shows victories in all science, literature, learning, progress.

## SOCIETY PROCEEDINGS.

### FIRST PAN-AMERICAN MEDICAL CONGRESS.

Held at Washington, D. C., September 5, 6, 7, 8, 1893.

(Continued from page 335.)

#### SECTION ON GENERAL MEDICINE.

##### FIRST DAY—SEPTEMBER 5TH.

THE PRESIDENT of the Section, PROF. VICTOR C. VAUGHAN, delivered an address on "The Principles of Immunity and Cure in the Infectious Diseases," which will be published in full in a future number of THE MEDICAL NEWS.

The paper of DR. FRANCISCO A. RISQUEZ was entitled "Forms of Malaria and their Characteristic Features." The malarial diseases in Venezuela may be classified as

follows: I. Intermittent forms, generally quotidian, occasionally tertian. II. Continued forms, including the varieties: (a) bilious, (b) icterohematuric. III. Pernicious forms, including the varieties: (a) pernicious proper, (b) complicated. IV. Larval forms, including the varieties: (a) periodic, (b) continued.

The forms of the first group are easily recognized by the features of the paroxysm and by the periodic element. When the access is prolonged, the diagnosis may be difficult. The forms of the second group are distinguished by the gastro-hepatic symptoms and the indications of the urine. They may be confounded with others, especially with those of yellow fever, and the distinction becomes often a matter of life and death. The forms of the third group are recognized by the preëxistence of malarial paroxysms. It may become almost impossible, however, to distinguish between cholera, pneumonia, or tetanus, and cases of choleric form, dysenteric, tetanic, or other pernicious fevers. The forms of the fourth group present still greater difficulties, especially in the continued varieties. They may assume all the appearances of typhoid fever, of cholera, of dysentery, of paralysis, of hemorrhage. The malarial cachexia may simulate tuberculosis, hepatic abscess, etc.

An early diagnosis is indispensable in these cases, because they require the fearless administration of quinine; and this drug may be contra-indicated in the non-paludal diseases. There is but one unquestionable method of diagnosis: *the microscopic examination of the blood*. All malarial manifestations are accompanied with melanemia; melanemia presents itself exclusively in malaria, and the sign is, therefore, pathognomonic. A drop of malarial blood, under the microscope, shows the masses of black pigment in the plasma. The manipulation requires no special technique; it is simpler than the examination of the urine. It does not require, as the parasite of Laveran does, an investigation by an expert with high powers of the microscope. Our method requires only a few slides and covers, and a drop of blood obtained from the finger, previously washed. The preparation is taken to the laboratory and there examined. The strong mineral acids may be used as reagents.

A search for pigment should be made in all suspected cases. The number and size of the pigment masses is proportional to the degree of malarial poisoning. If they are found at all, quinin should be given. The author has found pigment in all forms of malaria. He has found it also in other diseases, but only as evidence of malarial complication. Melanemia is always an indication for the administration of quinin. The life of the patient depends often in these cases upon a prompt diagnosis.

DR. MENDEZEBAL, of Mexico, read a paper on "Paludal Fever in Orizaba."

##### SECOND DAY—SEPTEMBER 6TH.

DR. WILLIAM C. DABNEY, of the University of Virginia, read a paper on "Typhoid Fever," based on a study of fourteen cases of continued fever occurring at the University of Virginia between January 15th and April 1, 1893. The epidemic, or outbreak, presented the following features of interest: 1. There had been no typhoid fever in or around the University, so far as the author could learn, for several months. 2. Between the middle of January and the first of April, 1893, there occurred

fourteen cases of continued fever among persons living or employed on the University grounds. 3. The persons who had this continued fever had rooms at widely separated parts of the University grounds, but all took their meals at the same hotel. 4. The water-supply of this hotel was the same as that of the other hotels and of other parts of the University, and the sanitary condition of the building was good. 5. A part of the milk-supply was obtained from cows whose teats had been washed in water contaminated by sewage, and *probably* infected with typhoid-fever germs. It was in evidence also that at least five of the fourteen persons used milk at every meal. 6. Of the fourteen cases of continued fever five presented the typical features of typhoid, seven were typical in character, and of the other two the author could not speak with certainty, as they were not under his care, and he could get no satisfactory history of the cases.

DR. CLAIBORNE, of Petersburg, Va., in discussing the paper, said the differential diagnosis between typhoid fever and malarial fever is often quite difficult. It is not the habit of physicians in his part of the United States to make many post-mortems, and without post-mortem examinations he cannot see how these cases are to be classified. It is very difficult, indeed, for him to classify the cases which have a fever, commencing as a chill and running at once to a very high temperature, *without* other symptoms. Some time ago it was customary to call these cases of typho-malaria the result of two poisons—of vegetable and animal forms. However, the physician who made this classification has since practically recanted it. The writer had frequently seen cases of fever beginning, apparently, as a malaria and ending in typhoid. He is in the habit of testing these cases with gr. xx of quinin three times a day. If this does not produce exacerbation, he is pretty certain that it is something else than malarial fever. With the exception of that test, he is at sea, and he would be very much obliged to any member of the profession who will give any information on the subject.

\*DR. LARRABEE, of Kentucky: Dr. Dabney has mentioned a very common mode of the production of the disease; but the water, in his cases, was put on the outside instead of on the inside of the cow. In this respect it was different from the ones with which I have come in contact. In the city of Louisville forty cases were traced to a single milk-supply; there the water was used for washing the utensils. Thirty-seven cases were traced to this, leaving only three doubtful cases. In the malarial districts, in the West and Southwest, it is indeed difficult to differentiate typhoid fever without the use of quinin. If it be malaria, and quinin be given, it is well to have recourse to an old remedy; for, although we have moved into a new house, some of the old furniture fits very well. I refer to calomel. (Applause.)

DR. FORD, of Philadelphia: It would be interesting to know whether typhoid and malaria are ever mixed. It seems to me there must be some cases of mixed infection.

DR. LEIGHTON, of Brooklyn: During the war, in Maryland, there were many cases of intermittent and remittent fever which were difficult to differentiate. There was an opportunity to make quite a number of post-mortem examinations, for many cases terminated

fatally, and there were found the diseased glands and congested liver.

DR. SIBBETT, of Carlisle, Pa.: I was sent as medical inspector to a school where forty-two pupils were taken down with typhoid fever. Two of them died in a few days. The most malignant form, apparently, set in first. At that time we had an endemic of almost every form of typhoid or continued fever. It was my duty to find the cause and report. There were two difficulties: bad water and bad privies. In these forty-two cases I tried to determine when the fever began and when it ended. I came away from this investigation with the impression that it is impossible for us to tell.

DR. WEST, of Texas: A great mistake has been made by not recognizing the fact that the typhoid condition never exists without the typhoid fever. Not only do you have the occurrence of these abortive cases of typhoid fever, but often the patients remain on their feet almost until death. We have many cases of so-called mild typhoid fever, and the cases related are examples of this. When you know quinin is absorbed in the blood, it will have its effect on malaria. In the hospital where I serve we have malaria and typhoid-fever patients side by side, often from the same ship and various parts of the United States. We often have both infections occurring at the same time on board a vessel, but I have been unable to say positively that a certain case is typho-malaria.

DR. PURSELL, of Illinois, urged caution in the treatment of these cases owing to the danger of perforation.

DR. VICTOR C. VAUGHAN, of Michigan: There may be such a thing as typho-malarial fever, but no man has ever, as yet, demonstrated its existence. To-day there are three theories concerning the causation of typhoid fever: The German theory, that typhoid is caused by a certain germ; that it is a specific disease, the same as smallpox. One of the definite characteristics of the germ is, that it will grow upon potato, forming an invisible growth. The Koch-Eberth germ is the only germ capable of causing typhoid fever. The other theory we may designate as the French theory, which is that the cause is a modified form of the bacillus coli communis, which sometimes acquires extraordinary virulence. If the French theory is correct, the pollution of water with any fecal matter may cause typhoid fever. If the German theory is correct, it would be perfectly safe to drink all the fecal matter you wish, provided it comes from healthy persons. Now, there is another theory, and that is, that typhoid fever may be caused by any one of a number of germs, which are closely related to one another, but which are not connected either morphologically or physiologically, and consequently we cannot expect the symptoms to be the same in all cases. For the last twelve or fifteen years I have, on account of certain official positions, investigated every outbreak of typhoid in the State of Michigan, and for the last six or seven years I have accompanied these with a bacteriological examination, both of the drinking-water supply and, for the last two or three years, of the spleens of the persons dead from typhoid fever. While I have seen thousands of cases of typhoid fever, I have yet to see a case of *typical* typhoid fever, as described in the text-books, where the temperature is graded day after day. Of course, in many of these cases the tempera-



ture is interrupted by the treatment. Further, I have never, as yet, found in the drinking-water, or in the spleen of a person dead from typhoid fever, a germ identical with the supposed specific germ. Occasionally I have found germs which form an invisible growth on potato, but they have been different from the Eberth germ. In a recent outbreak at Ironbrook I inoculated beef-tea, and after twenty-four hours injected it into animals. The germ was then found in the spleen, kidney, and liver. I directed sent to me the spleens of all persons dead from typhoid fever, and in these, which were quite a number, I found the same germs as in the water. I think this pretty positive proof that the germ caused the disease. I think we have a group of causes, just as in the vegetable world we have a number of plants which produce poison, varying in virulence according to the conditions in which the plant grows. Tobacco grown upon different kinds of soil will show changes. Why not germs, which pass through a number of generations in a short time? A woman living in the country does not go from home, but dies of typhoid fever. A post-mortem is held, and it is found to be true typhoid fever. Some contend that such cases are caused by infection carried by a tramp with walking typhoid fever, who, visiting the various water places, infects the neighborhood. There are 50,000 deaths in this country of typhoid fever and 500,000 sick with it. This shows that the germs must be widely distributed. I am sure that healthy individuals aid in distributing the disease.

DR. DAVID LOBO, of Venezuela, read a paper entitled "A Contribution to the Clinical Study of Prolonged Remittent Fever." It was his purpose to describe a certain form of malarial infection which, he believed, has received very little attention from standard writers on tropical diseases. The description was based on clinics exclusively, referring to the various individual conditions, and was intended to impart his personal views in regard to the malady as it occurs in Caracas.

**Etiology.** The aspect and extraordinary course of the pyrexia are probably due to corresponding variations in the power and quality of Laveran's corpuscles, to over-poisoning of the blood, or to some distinct element operating simultaneously with the paludal germ.

Variations in temperature do not respond to any fixed law of recurrence. The temperature generally ranges from 38.5° to 40.5° C., and drops or rises unexpectedly. Remissions take place at any moment of the day. Intermissions may recur, but they should never be trusted. *Chills* and *sweating* may be observed, but never as definite stages of the fever.

**Special symptoms.** *Circulation* and *respiration* do not exhibit any deviations, except those induced by the reaction of the organism under the influence of abnormal heat. Divergencies between pulse or respiration, and temperature, should be looked to and carefully treated.

The fever frequently runs its entire course free from complications. There are serious incidents generally; their gravity depends on the importance of the organ attacked.

It is obvious that the whole clinical history of the disease may be condensed into two prominent facts, viz., an irregular temperature and a long, weary course.

**Diagnosis.** The main points by which long remittent fever can be discriminated from other malarial forms,

are its uncommon course, its irregular temperature, the absence of marked stages, of hepatic or splenic troubles, and its resistance to quinin.

Between it and *typhoid* there is no possible confusion; typhoid is cyclic in its career, is accompanied by intestinal lesions, presents peculiar eruptions, and is extremely rare at Caracas.

The so-called *typho-malarial* fever exhibits typhoid symptoms, which are never present in ordinary remittent.

Vomiting of black matter and albuminuria are perfectly distinctive of *yellow fever*. The course of this never exceeds ten days.

*Pernicious fevers* are sufficiently distinguished by their short duration and characteristic aspect.

When complicating or intercurring processes do not occur, a fatal issue is seldom to be feared. High temperature, extreme weakness, frequent vomiting, copious sweating, and diarrhea, generally impart a serious character to the disease.

Prognosis is entirely different when we have to deal with organic complications.

**Complications.** The fever may give rise to a special inflammation of the lung, to which the term *pseudo-pneumonia* can be properly assigned.

Among nervous complications, none is so terrible as *cerebral congestion*. It may assume a *convulsive* or a *comatose* form, but the latter is more common. The convulsive form is probably due to meningeal congestion. The issue is fatal in nine cases out of ten.

*Acute entero-colitis*, *dysentery*, and *choleric form diarrhea* are fearful complications, as they often lead to a fatal result. *Hemorrhage* and *acute peritonitis* are apt to occur as secondary phenomena, subsequently to ulceration of the digestive duct. The *kidneys* generally undergo no injury at all. Urine is *never albuminous*.

**Treatment.** Long remittent fever is very slowly influenced by quinin. There are cases in which the drug is absolutely useless, whether it be given in large or small doses. If administered to excess, it is apt to cause irritation of the stomach, vomiting, diarrhea, heart depression, and collapse. The view that quinin will prevent complications is merely hypothetical.

*Aconite*, *arsenic*, and *carbolic acid* may be resorted to in protracted cases. I place very little confidence in their action.

*Warburg's fever tincture* is a valuable remedy. *Salicylate of sodium*, *antipyrin*, *antifebrin*, and similar agents will surely act on temperature, but their effect should be carefully watched.

*Tonics* should be freely ordered.

*Chlorate*, *iodid* and *potassium bromid* are indicated in very chronic cases.

*Cool baths* or *lotions* are an innocent and efficient means of lowering the temperature. They must not be spared.

A *proper diet* should be prescribed from the first, including good wine and diluted brandy. Complications call for a special treatment, entirely dependent upon the nature of each case.

In the discussion of Dr. Lobo's paper, DR. OSLER, of Baltimore, said: Without a very careful study of the blood in such a disease as Dr. Lobo describes, it would be very difficult to distinguish it from typhoid fever. In this latitude we do not have the protracted cases of remittent fever in the form he described, which will not

yield to quinin. A fever in this latitude which does not yield to quinin, properly given, within three or four days, is not malaria. Dr. Risquez lays great stress on the black pigment in malaria. In many of the cases of very acute malaria in this latitude, there is very little pigment indeed. *In some of the most malignant forms* there is very little pigmentation to be seen in the red blood-corpuscles, in the early stages of the disease. I would emphasize the importance of careful study of the blood in all cases of continued fever.

DR. LOBO: I think that the clinical appearance of the disease is usually characteristic. Its course is so extremely different from typhoid fever and ordinary remittent fever that the symptoms described, in my opinion, are sufficient to designate it. In reference to influenza, I think there is no confusion possible between the two diseases. As to typhoid, you must bear in mind that typhoid is extremely rare in Caracas, and almost absent from the city. I have seen only two cases of regular typhoid fever in Caracas. Can you say that a person affected with a fever, having no congestion of lungs, of liver, of bowel, of spleen, no delirium, no convulsions, etc., is affected with typhoid fever? In pernicious malarial fever the symptoms develop rapidly, the patient dying in twenty-four to thirty-six hours, and there is scarcely any time for the employment of quinin. In intermittent fever you have never such startling symptoms. Your patient may sit up with it one, two, or three months, and you may be almost sure your case will recover. Quinin does no good in such cases.

SOLOMON SOLIS-COHEN, M.D., of Philadelphia, then read a paper on "Vasomotor Ataxia."

1. By the term "vasomotor ataxia" it is proposed to designate the condition of instability of the mechanism of circulation present in certain persons, and characterized by abnormal readiness of disturbance with tardiness of restoration, of the equilibrium of the cardiovascular apparatus. The manifestations are most strikingly displayed in the terminal vessels and occur chiefly under the action of external influences, especially cold; of toxic agents; and of emotion. The stimulus may be applied centrally or peripherally, but in each case the resulting phenomena indicate a defect of central inhibition.

2. Vasomotor ataxia is in many cases congenital; in some inherited; the condition is not rarely present in several members of a family.

3. In some cases the phenomena are of parietic, in others of spasmodic character. Usually the two kinds of phenomena are displayed in varying degree in the same patient. Whether spasmodic or parietic, the symptoms are suggestive of incoördination.

4. In exophthalmic goiter, especially such cases as are produced by emotion or are markedly intermittent, is found the extreme type of the parietic variety of vasomotor ataxia.

5. The form of Raynaud's disease known as "local syncope" furnishes an extreme type of the spasmodic variety, while "local asphyxia" exhibits both spasmodic and parietic phenomena.

6. Between these extremes are numberless gradations down to the slightest departure from normality, while even the extreme symptom-groups represent merely exaggerations of phenomena that under certain conditions occur in normal individuals.

7. Dermographism is an essential feature of vasomotor ataxia, and in most cases factitious urticaria can be readily produced by cold or by pressure, or by both; mottlings of the skin, certain peculiar markings of the nails, telangiectases, and stigmata, are common.

8. There is usually a hemorrhagic tendency, as shown by ecchymoses, petechiæ, epistaxis, hemoptysis, hematemesis, hematuria, and retinal hemorrhage.

9. Even in the absence of hematuria, red blood-cells are often found in the urine; uric acid, urates, and oxalates are likewise common; the presence of albumin, tube-casts, and cylindroids, is less common, and is usually intermittent. Glycosuria has been observed.

10. In many striking cases there has appeared to be morbid alteration of the thyroid gland.

11. The action of the heart is usually rapid, irregular, and easily disturbed; palpitation is common, and in some cases intermittent tachycardia has been noticed. Hemic and functional murmurs are not uncommon.

12. Among other symptoms and morbid associations observed are drug-idiosyncrasies, urticaria, local edema, angina pectoris and pseudo-angina, hyperidrosis, asthma, hay-fever, vertigo, migraine and other forms of headache, transient hemiopia and other visual disturbance, persistent mydriasis, astigmatism, myopia, hyperopia, menstrual irregularities, intermittent polyuria, rheumatism, chorea, epilepsy, neurasthenia, gastralgia, enteralgia, and membranous enteritis—most of which are doubtless related as effects of a common cause or as secondary results.

13. The development of pulmonary tuberculosis in some cases is probably a sequence of vascular and trophic disturbance in the lung.

DR. WEST, of Galveston, Texas (in discussion): I recall a number of cases, and I find these have generally occurred in females, and those I recall now occurred in sterile women and were associated with menstrual disorders. It seems to me the name of vasomotor ataxia is a very good term. It gives a local habitation and a name to a disease we frequently meet with, and whose cause is exceedingly obscure.

DR. COHEN: The pathology of the disease is obscure, of course. The pathology of the whole sympathetic system is obscure. I believe the disease is a congenital one. It is largely a defect of development, and if searched for would be found in many more instances than have been recognized. By recognizing the liability of our patients to such conditions, and by taking proper treatment, we can, I believe, in very many cases save our patients from many of these graver conditions.

DR. J. M. ANDERS, of Philadelphia, read a paper on "The Complicating Conditions, Associated Diseases, and Mortality-rate in Erysipelas." During the year just past the writer had been engaged in conducting a collective investigation into the disease of erysipelas. The average duration of the affection was computed in 1880 cases, and found to be (including relapses) 25.13 days. Erysipelas in a typical form is a self-limited disease; that the length of the attack is greatly influenced by the age of the person *per se*, its average duration in persons over fifty years being considerably longer than in younger subjects; sex has no influence in this direction. Certain conditions and diseases increase the liability to the complaint.

I propose to present the results obtained from a study of a series of 1674 cases, which were analyzed with particular reference to complications. In the opinion of all authors the death-rate is exceedingly variable, ranging, according to some writers, from 1 to 50 per cent. The comparative gravity of the leading complicating conditions and diseases is shown by the following table:

Complications.	No. of instances.	Deaths.	Recoveries.	Per ct. of deaths.
Abscesses . . . . .	105	8	97	7.6
Acute rheumatism . . . . .	20	2	18	10
Pneumonia . . . . .	7	4	3	57.1
" catarrhal . . . . .	2	...	2	0
Delirium . . . . .	7	4	3	57.1
" tremens . . . . .	10	8	2	80
Pleuritis . . . . .	7	1	6	14.3
Acute nephritis . . . . .	6	3	3	50
Phlebitis . . . . .	7	0	7	0
Synovitis . . . . .	5	0	5	0
Diarrhea . . . . .	5	0	5	0
Edema of larynx . . . . .	2	2	...	100
Pyemia . . . . .	1	1	...	100

It will be seen that, while abscesses are common, they do not to any extent augment the mortality-rate. Pneumonia, delirium, delirium tremens, and acute nephritis are among the graver complications. Acute rheumatism, on the other hand, stands second in frequency, but is comparatively harmless. To account for the increase in the percentage of fatal cases due to acute articular rheumatism we possess no positive knowledge. The opinion is, and long has been, prevalent that erysipelas benefits and even cures articular rheumatism and other affections (including carcinoma and sarcoma).

These deductions may serve not only to reiterate some of the leading demonstrated facts, but also to facilitate a discussion of the same:

a. In typical cases erysipelas is a self-limited disease, the average duration in persons under forty years of age being fourteen days.

b. The course of the disease was greatly lengthened when complications were present or chronic affections preëxisted, as well as when occurring in persons over fifty years of age.

c. Certain chronic affections, notably pulmonary tuberculosis, chronic nephritis, chronic rheumatism, and organic diseases of the heart increase the susceptibility to the complaint, having been present in 7.8 per cent. of the total number of cases.

d. The most common complications were abscesses and acute rheumatism; the rarest meningitis, ulcerative endocarditis, and pericarditis, the latter not having furnished a single instance.

e. The general average mortality was 6.57 per cent., while in the cases from private practice it was 4.16 per cent; in persons under forty years it was only 3.5 per cent.; in those over seventy years, 46 per cent., and in the traumatic cases 14.5 per cent.

f. The mortality list was augmented as much as 25 per cent. by the presence of coexisting chronic affections.

g. The numerous complications also increased the percentage of deaths, and certain of them in an especial degree, notably lobar pneumonia, acute nephritis, delirium tremens, and active delirium.

h. Age has a decisive influence upon the mortality

after the fiftieth year, this effect becoming more pronounced after the sixtieth year.

DR. VAUGHAN alluded to a case in which a child suffering with a sarcomatous growth was inoculated with erysipelas. The child's death was apparently hastened by the erysipelas.

DR. CRONYAN, of Buffalo: Some time ago we had a patient in the Buffalo Hospital with progressive locomotor ataxia. He was attacked with erysipelas of the face, extending over the whole of it and over the head, involving the meninges of the brain. We administered the tincture of iron, after which we purged him with calomel. After recovery from the erysipelas, the patient required no "sticks," but was able to walk about as well as anybody, and continued to do so the rest of his life—a number of years. I agree with the author, the age of the patient has much to do with the fatality of the disease.

DR. DESAUSSURE: The author mentions the frequency of heart-disease in these cases, and I would like to ask if he attributes erysipelas to that disease. Also, were the abscesses in his cases located in the deep cellular tissue or in the neighboring lymphatic glands?

DR. ANDERS closed the discussion: The fact that so few die of this disease who are attacked with acute articular rheumatism, is very good evidence of its action. In fact, erysipelas is supposed by some to cure acute articular rheumatism. Endocarditis is apt to occur in cases of articular rheumatism; perhaps the percentage of cases in which they do occur is not less than thirty. As to whether organic heart-disease causes erysipelas, I would say, By no means. Chronic affection of the heart merely predisposes to the disease.

(To be continued.)

## NEWS ITEMS.

*Colorado Medical Library Association, of Denver, Col.*—The medical fraternity of Denver and Colorado are endeavoring to build up a medical library in Denver. Owing to remoteness from the centers of population the work undertaken is difficult in many ways. Societies can aid materially in this enterprise by sending their *Proceedings*. Anything in the way of medical literature sent will be acknowledged, placed on the shelves of the library, and brought to the attention of readers. Address, care Public Library, Denver, Col.

*Cholera* has appeared in Hamburg again, twelve cases and nine deaths having occurred from September 13th to September 18th. In Italy and France the disease is still spreading. In Palermo there were fifteen fresh cases and nine deaths on the 18th. The disease is also on the increase in Russia, Galicia, in Bukowina in Austria, and there is much alarm in Germany. Braila in Roumania is infected. During August nineteen deaths occurred in Antwerp.

*Yellow Fever.*—At Brunswick, Ga., yellow fever has broken out, according to telegrams from Dr. Guitéras to Surgeon-General Wyman. The latter is acting with most commendable intelligence and energy to stamp out the disease and to prevent its spread, by quarantine, disinfection, and restriction of travel, mail-communication, and a thorough organization of all means of control.